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Archaeology in the U.S.S.R. *
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Excerpts

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Chapter 2.
The Most Ancient Past,
The Palaeolithic and Mesolithic Periods

...[77]...

The Lower Palaeolithic Period

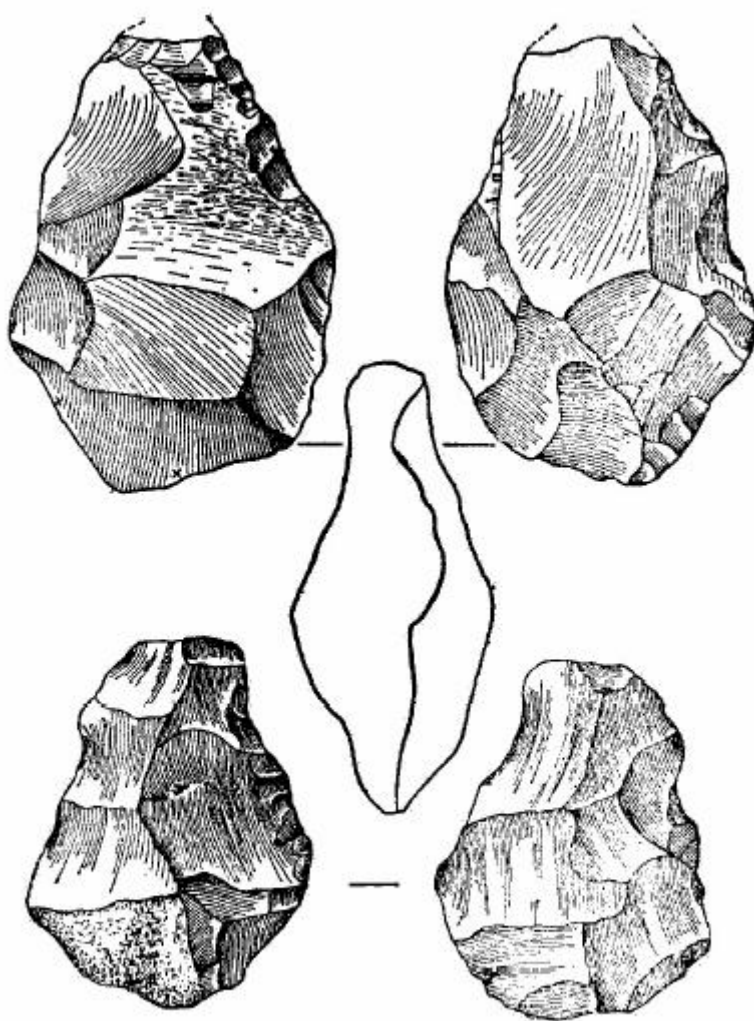
Early Man in Transcaucasia

Palaeontological, archaeological, as well as geological evidence allow the supposition that Transcaucasia (that is the area south of the Caucasus range proper) was one of the areas where the transformation of ape to man could have taken place. In 1939 in eastern Georgia, at a place called Udabno, remains of apes with human features were discovered. These apes had [78] lived at the end of the Tertiary Period and are called scientifically from the place of discovery *Udabnopithecus*...

In 1946-8 on the hill of Satani-Dar (about 150 km. southwest of Tiflis) situated near Mt Bogutlu in Armenia, rough obsidian tools of the oldest type came to light, belonging to the Chellean Period. These are the oldest tools so far found in the USSR. This is a firm

link in the chain of evidence supporting the view that the southern areas of the USSR lay in the area where the complete emergence of man from animal existence took place. [Chellean or Abbevillian, Acheulian and Mousterian are the most important divisions of the Lower Palaeolithic Period according to the types of tool in use. The tools from Satani-Dar are regarded as early Acheulian by some Western archaeologists, many of whom would not entirely agree with the author's observations. T.]

The oldest late Chellean tools in Satani-Dar are rough, large, almond-shaped hand-axes [the characteristic tool of the earliest Palaeolithic Period. T.]; thick flakes, lightly chipped around the edge and at the end; lumps of obsidian shaped into rough chopping tools (Fig. 5).



5. Satani-Dar. Obsidian axes.

With the help of these tools the most ancient inhabitants of Armenia made wooden clubs and sticks and worked on the products of hunting and plant collection. 'By these means people first separated themselves from the animal kingdom (in the narrower sense of the word) and entered into history. Still half-animal, still savage and helpless before the

forces of nature, they did not realize their own ability for they were poor like animals and not much above them in productivity' (Engels). Progress was so slow that thousands of years passed before people could even make such primitive tools as those from Satani-Dar. An extraordinarily low level of the productive forces is characteristic of human society on the threshold of history.

In 1946-7 a site with tools of a very archaic type was found at Luka-Vrublevetskaya on the left bank of the Dnestr (about 300 km. north-west of Odessa). The classification of these tools as Chellean is uncertain, for it depends merely on the appearance of the tools. The fact is that archaeologists generally do not find Chellean tools in an undisturbed site but only as loose objects. This is because the layer of earth in which Chellean [79] tools were incorporated has been washed away by water, disturbed by movements of the earth's crust and other causes in the course of the hundreds of thousands of years that have elapsed since they were first discarded.

In Satani-Dar not only Chellean tools but also Acheulian tools of a later period were found. These bear witness to the long occupation of Armenia in the course of the Old Stone Age. Tools of the Acheulian Period were better finished, of [80] more regular shape, more carefully chipped. Acheulian hand-axes have a more definite working edge than was usually achieved in the rough work on Chellean hand-axes. This better finish is often unnoticed at first glance and even seems unimportant, yet it demanded considerable labour and time.

Other lower palaeolithic sites have been found in Armenia, and on the Black Sea coast of the Caucasus. Here dozens of sites were found in 1934-6 by an expedition of the Academy of Sciences. The best studied site was Yashtukh (about 350 km. north-west of Tiflis). During Acheulian times when this area was occupied the level of the Black Sea was 60 m. higher than now. In Quaternary times terraces or raised beaches were formed 30-100 m. above present sea level and on one of these was the site of Yashtukh. [Raised beaches formed at a time of higher sea level and occasionally with an associated palaeolithic industry are known from elsewhere, especially by the Mediterranean coast. T.] Lower palaeolithic industries have also been found in several places in the Ukraine, and in Turkmenia on the shores of the Caspian Sea.

[87]

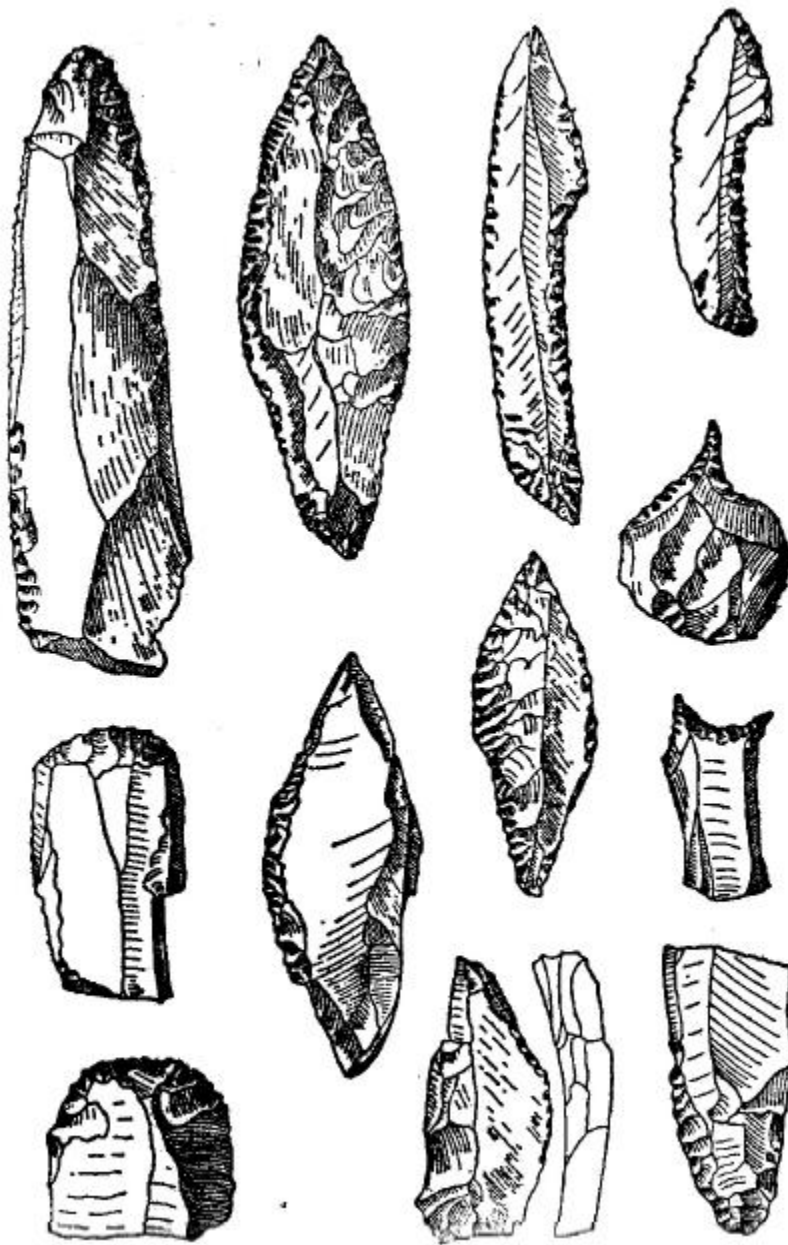
The Upper Palaeolithic Period

The Upper Palaeolithic Period lasted from 40,000 to 12,000 years ago. This is the so-called Late Glacial Period when the severity of climate was most extreme. In much larger areas of Europe and northern Asia than formerly, a landscape of tundra or cold

steppe with islands of northern forest obtained.

Development of Primitive Man

The change to the Upper Palaeolithic Age was expressed in important changes in the way of life of primitive man. New techniques and forms of economy appeared and even the physical appearance of man underwent changes. Men made their appearance without the animal characteristics conspicuous in Neanderthal man; upright carriage was fully developed, as was the hand, to its modern form, allowing an exact command of movements. As a whole upper palaeolithic people hardly differed at all from modern people. The working of flint reached [88] a high level. In the Mousterian Period triangular flakes were struck from disc-shaped cores, but now cores were conical and elongated thin flakes called blades were struck off from one end (Fig. 6).



Tools were made not only of flint but also of bone, deer antler, and mammoth tusk. Wood was widely used. Wooden tools have not survived but the form of a number of stone and bone objects indicates that they are the working part of an implement set in a wooden handle. The change to composite tools and weapons was an important advance in technique. Hunting tools appear as a distinct type as a result of the hunt becoming the basic form of economic activity of upper palaeolithic man. The high stage of development of the productive forces allowed him to adopt settled life. Permanent durable dwellings make their first appearance, as well as art and some religious manifestations.

Upper Palaeolithic Sites

The Upper Palaeolithic Period in the USSR is well studied. Systematic and planned researches have led to the discovery of a great number of sites of different dates, in some cases in the same area, which has allowed study of the peculiarities of development of palaeolithic culture in a particular region. Soviet archaeologists have discovered the most northern palaeolithic sites in the world, such as Talitskaya near Perm (named after the archaeologist who first dug the site and was killed in the Second World War) and a series of sites on the river Lena in the Yakut SSR. As a result of many years' work by several expeditions, compact groups of sites have been found and studied. Thus at Voronezh, on the Don, in a length of 30 km. along the riverside no fewer than twenty palaeolithic stations of different periods have been found. The Kostenki-Borshevo region on the Don contains one of the most important concentrations of upper palaeolithic sites in the world. On the banks of the Desna near Novgorod-Seversk some seventeen sites are known.

These groups of sites are generally situated in the valleys of large rivers, and they testify to an appreciable growth in the primitive population, especially in favourably situated areas. In the European part of the USSR sites are known from an [89-illustration] [90] extensive area, from south White Russia [Belarus] to West Georgia. A glance at the distribution map (Fig. 4)



shows that the sites fall into groups separated by areas, sometimes large, in which no traces of this period have been found. These can be explained partly by the absence of research in these areas but partly by physical circumstances of the time. There was only a limited number of inhabitants, who lived in small isolated groups in the areas most favourable for settlement. Therefore although the possibilities of further discoveries are great it must not be supposed that it will be possible to fill in all the blank spaces on the map.

One of the most interesting problems studied by archaeologists of the Palaeolithic Period relates to local variations in culture of primitive society.

Soviet scholars have come to the conclusion that none of the observable differences of culture in primitive society is original. These differences are due to historical causes. Throughout lower palaeolithic times the technical equipment of primitive man was so weak, the culture so backward that the latter was expressed in similar forms in widely separated parts of the globe. Only because of dependence on varying natural environments several local variations of culture made themselves felt. The higher cultural level of upper palaeolithic man led to different results and in this case several important cultural areas can be distinguished which owe their differences to prolonged geographical influences experienced by man in each area. These areas are: the African and Mediterranean area, the European periglacial area, and the Chinese and Siberian area. ...

In the opinion of Soviet scholars the Upper Palaeolithic Period in our country can be divided into three great regions: (1) east European plain; (2) Siberia; (3) southern regions, which did not experience direct influences of glaciation, that is, the Crimea, Caucasus, and central Asia. In each of these some local peculiarities of technique, economy, and culture were manifested. Although both the east European plain and Siberia were partially glaciated, the differences in culture between the two areas are fairly significant. Evidently this was due to the fact that Siberia was isolated from Europe by the southward movement of the ice sheet and the northward transgression of [91] the Caspian Sea, which produced a difference of culture on either side of the barrier. The inhabitants of the third area enjoyed an environment in which warmth-loving animals and plants also lived, so that here gathering of plants was carried out to a greater extent than in the north, while fishing and the use of the bow and arrow were started earlier. Each area was occupied by a large number of small primitive clan communities separated by extensive unoccupied areas.

[96]... In the Georgian caves of Mgvimevi (about 200 km. west-north-west of Tiflis) and in the so-called Stone Grave at Terpen (about 300 km. west of Rostov-on-Don) are cave drawings still little known. At Mgvimevi there are geometrical linear patterns, while at the Stone Grave as well as this type there are sketches of animals, apparently done with stone tools. These are not accurately dated but it is likely that some belong to [97] the end of the Palaeolithic Period and that others are later. Scholars suppose that both the geometrical drawings and some of the sketches of animals like the figure of a horse on the roof of the Stone Grave rock shelter are palaeolithic. Primitive engravings filled in with colouring are known from a site in Uzbekistan and are evidently partly upper palaeolithic in date. In the valley of the river Lena at Shishkino (west of L. Baikal, north of Irkutsk) there are rock drawings which extend for three kilometres. Among hundreds of drawings of elk, bovids, camels, riders on animals, birds, and horses, two animals--the wild horse and aurochs--belong to the animal world of the end of the Ice Age. These late palaeolithic drawings are the oldest artistic monuments in northern Asia. However it must

be noted that in all three cases the palaeolithic dating is controversial. Extensive research on these sites is needed and, it is hoped, will finally resolve the problem of when the drawings were made.

[98]...

Extent of Palaeolithic Remains in the USSR

As was said above, upper palaeolithic sites are very widely spread in the European part of the USSR. This is not the place to list all or even the most important of them. It is desirable only to remark that in other Soviet republics outside the RSFSR [which includes Siberia. T.] research is carried out on palaeolithic sites. In the Ukraine a large group of scientists is at work; in White Russia (Belorussia, north of Ukraine) work is also carried on; while mention has been made above of researches in Armenia. In 1926 an aurignacian deposit was discovered in the cave of Devis-Khvreli (in west Georgia), when [99] the existence of palaeolithic remains in Georgia was first proved. In 1936 an upper palaeolithic cave site was excavated at Sakazhia (about 200 km. west-north-west of Tiflis) and other sites have since been excavated. In 1951-3 archaeologists of the area carried out excavations at the cave of Sagvarjile. This contained numerous layers from the lower palaeolithic to the first centuries A.D. In the upper palaeolithic levels, together with obsidian and flint tools were also found bone darts and awls. One awl made from a long bone was in the form of a fish, whose tail was decorated with herring-bone ornament. There were pendants of plaster decorated in the same way, a bone pin, and a necklace of nineteen perforated shells from southern seas was also found. The search for palaeolithic remains in Georgia continues.

Extensive searches for palaeolithic remains are being made in central Asia. Outside Uzbekistan, which was mentioned above, palaeolithic remains have been found in Tajikistan, Kirgizia, Turkmenia, and Kazakhstan. As the result of work in 1938-53 the following parts of central Asia and Kazakhstan yielded evidence of occupation in the Old Stone Age: the western part of Turkmenia along the shores of the Caspian Sea, the district of Baisun-Tau, the lower parts of the rivers Vakhsh and Kapirnigan, the central part of Tien-Shan, the valley of the Irtysh between Lake Zaisan and Samipalatinsk.

Transition to the Mesolithic Period

At the end of the Upper Palaeolithic Period great changes took place in the economy and way of life on the east European plain. The Ice Age drew to a close, the climate became warmer. Hitherto the characteristic large settlements with dwellings had as their basis the hunting of mammoth; now at the end of the Palaeolithic Period mammoth and woolly

rhinoceros were encountered less frequently and the smaller animals were hunted instead. For hunting large animals like mammoth none of the lower palaeolithic implements had been effective. In upper palaeolithic times more accomplished implements appeared, capable of piercing the thick skin of a mammoth, but the basic method of hunting remained the battue, whereby the hunted [100] beasts were driven into a vulnerable position. An illustration of such hunting is provided by the conditions on the site found at Afontova Mountain near Krasnoyarsk. Mammoths were driven to a precipice over which they fell and broke their limbs. Success in the hunting of small animals on the other hand depended to a significant degree upon the refinement of the hunting weapon. Flint arrowheads were improved and bone began to be used also. Together with hunting, fishing became important.

The large settlements with permanent winter dwellings disappeared, and occupation became less fixed, or even migratory. The picture of such changes became clear from observations on the cultural layers at the site of Gontsi in the Ukraine on the right bank of the river Udai. In the lower layers remains of permanent settlement came to light including winter earth- houses, burnt material, and great piles mammoth bones. The upper cultural layer was thin and contained remains of only a light hut and material burnt in the open fire.

The Mesolithic Period

In the post-glacial period a gradual transformation to a new historical epoch took place, the so-called Neolithic Period (New Stone Age). This transitional stage constitutes a separate period which is called the Mesolithic Period (from the Greek words *mesos* middle, and *lithos* stone), or Middle Stone Age (called epipalaeolithic by those who regard it as the final phase of the Palaeolithic Period. This period covers the time between 10,000 and 5,000 B.C.). In the Mesolithic Period there is a significant movement of people northwards to the areas formerly occupied by ice sheets. In eastern Europe people pushed forward in a comparatively short time to the shores of the Baltic, the upper reaches of the Dnepr and Volga, and farther north.

The most important change in technique in the Mesolithic Period was the general adoption of the bow and arrow, raising immeasurably the productivity of hunting economy. There is evidence that the dog was now first domesticated by people living mainly by hunting and fishing. Together with hunting an important part was again played by gathering. Man ate edible [101] molluscs, fruit, and berries in great quantities in the more favourable natural conditions of post-glacial times.

The Mesolithic Period is less well studied throughout the world than the Old Stone Age

[except in Scandinavia and the British Isles. T.]. This is because hunters and gatherers of the Mesolithic Period lived a semi-nomadic life, and the cultural deposits they have left contain few remains. Many settlements or temporary camps were set on sand dunes where the cultural deposit is subject to wind and is easily eroded. Sites of longer occupation are often in caves.

In the USSR remains of the Mesolithic Period are well known in the Crimean caves of Shan-Koba and Murzak-Koba, in Georgia, on the river Oka and the upper Volga, and elsewhere.

Soviet archaeologists have not only advanced the study of the Palaeolithic Period by their discoveries, but have brought about a transformation in the study of the social development, economy, and ideology of the period. The general works of Soviet archaeologists have not only solved problems of the Palaeolithic Period in the Soviet Union but have put these problems in their world setting...

Problems of the most ancient history of Europe cannot be settled without study of its eastern parts, above all of the European part of the USSR. In order to resolve many problems of world history in its initial stages Soviet and foreign scholars will have to collaborate. ...

Soviet archaeologists have traced out the earliest history of the USSR beginning with the first appearance of man on its territory, and the undoubted fact is established that the culture of the most ancient population of the country did not fall below the level of culture of any other areas occupied in the Old Stone Age.

Chapter 3.

The Neolithic and Copper Ages

[102] THE Neolithic or New Stone Age took its name from the technique of making stone tools by means of rubbing or polishing, drilling, and perforating stones, a new technique in relation to the preceding period. There was a time when the Neolithic Period was called the age of polished stone, but numerous later discoveries have established that this was not the most important indication of the new period. The majority of stone tools of the period are not polished, and as in the preceding period are simply flaked. Very important in the field of technical progress was the manufacture of clay vessels, pottery or ceramics (Greek *keramos* means clay). In the beginning of the Neolithic Period people discovered that by baking it was possible to convert soft moist clay into a permanently hard impermeable substance. The appearance of pottery is considered by some archaeologists so important a sign of the Neolithic Period that they even speak instead of a 'pottery age'. In this period, together with hunting and fishing, agriculture and stock-breeding began. After pottery, the most important form of manufacture to appear was textiles. Neolithic communities were acquainted with spinning and weaving, with the spindle and the weaving loom of the simplest type. Barter developed between tribes--especially in such materials as stone for the preparation of tools, and amber for personal ornament. Primitive trade led to the spread of various cultural achievements from one area to another.

In Tsarist Russia a substantial amount of neolithic material was collected, but all the same this period was poorly studied. Neolithic sites were excavated but the results were not always published, and except for some of the works of Gorodtsov there was no attempt to systematize or introduce order into the accumulated material, so that really the study of the neolithic cultures of the USSR began only in Soviet times. Naturally there has not yet been opportunity for study of the whole boundless extent of our country, and the period is still little [103] known in several districts of the USSR. Thus the north of the European part of the Union is much better studied than the south.

Neolithic remains are much more widespread than palaeolithic ones. Improvements in material productivity led to a growth in population. More ample forms of economy required large areas for the feeding of the expanded population, and so demanded further settlement, the occupation of substantial new territory. This is why neolithic remains are so widespread. If there are areas where still none have been found this should not be attributed at once to absence of inhabitants in the period but to inadequate archaeological survey of that part of the USSR. Work on the south of the European part of the USSR has been slight.

The South

At the end of the fourth and during the third millennium B. C. the steppe expanses were occupied by hunters and fishers. A great number of sites of these tribes have been found in the rapids zone of the Dnepr and the north part of the area near the Sea of Azov, but few have been dug. Light huts were used as dwellings, and pottery (partly decorated with comb impressions) has been found on the sites. Numerous tools of bone and flint indicate a hunter-fisher economy.

In 1930 during construction work an important neolithic cemetery was found at Mariupol near Zhdanov on the left bank of the river Kalmius near its entry into the Sea of Azov. It consisted of 122 graves, some of them belonging to children. In one grave a woman's skeleton was found with a baby in her arms. All the skeletons lay on their backs and above was sprinkled a layer of red ochreous clay, which is not found near the cemetery and so had been brought from elsewhere. The clay was covered over with black earth. In the graves were found a number of objects, for the most part of bone or stone, as well as animal teeth and shells. In the majority of the graves there was no sign of metal, but a few of them contained copper objects belonging to a later period. For the most part objects in the graves were for adornment. On the skeletons a whole array of bone plaques [104] originally sewn to the clothing survived, as well as boars' teeth, perforated shells, and so on. Sometimes a man's costume had been so decorated from head to foot. Among the especially interesting ornaments were the figures of animals cut out of bone, evidently representing pigs and oxen. A piece of rock crystal was found which does not occur naturally nearer than the river Ural or the Caucasus. The tribe who left the cemetery at Mariupol had intercourse with those remote parts. Flint knives, scrapers, arrowheads, and even polished stone axes and maces were found in the cemetery. Although the objects recovered in the cemetery threw little light on economic conditions yet it is possible to make some assumptions as to the occupations of the population. They still did not know agriculture but to judge by the figures of pigs and oxen they kept animals; hunting and fishing remained the basis of their economy. There were no property distinctions, no rich or poor amongst them and, although the mace appears as a symbol of authority, yet this was the authority of the head of a clan or tribe not owing his position to property.

In the north Caucasus at Nalchik (about 200 km. north- north-west of Tiflis) a cemetery has been excavated which was formed by a low hill due to the joining up of the material heaped up over each grave. One hundred and twenty-one burials were found there, for the most part consisting of contracted skeletons on their side and sprinkled with a red mummy-coloured dye. The few objects in the graves were flint knives, scrapers, awls, and arrowheads. There were bracelets made out of a soft stone, rings cut from limb

bones of animals, and pendants of teeth of wild boar, bear, deer, fox, and so on. The finds are generally similar to those from Mariupol. A few copper objects were also found. One and a half kilometres to the north-west an older settlement was excavated. No dwellings were found, but there were numerous flint knives, scrapers, and arrowheads, some stone axes and chisels, and undecorated pottery. The inhabitants of the settlement had a primitive hunting and gathering economy.

These three sites are roughly dated to the third millennium B. C. Neolithic settlements have been found on the shores of the Black Sea, but with the exception of the Akhshtyrskaya cave [105] mentioned above (p. 85) are not excavated. Here flat polished axes, made mainly of shale, were found together with small flint tools, oddments of bone, sherds of pottery, and animal bones. Not far from the site was a working site where axes and picks of slate were made.

Similar finds were made at the open site of Tetramits (west Georgia). Here there was definite evidence of agriculture in the form of querns for grinding grain, small-toothed flakes of flint which were set in a wooden haft to make the blade of a sickle, and stone hoes.

There is also evidence for the Neolithic Period in Transcaucasia. One site had two layers, a mesolithic level below, and a neolithic level above containing implements for hunting as well as hoes, querns, and pounders used in agricultural operations. No traces of stock-rearing have been found in Transcaucasia.

In central Asia on the lower Amu-Darya (Oxus) an important neolithic site is Janbas-Kala IV (south of the Aral Sea). It consisted of one large communal house set on a sand dune. It was approximately oval in plan covering an area of about 290 sq. m. The excavator supposed that the dwelling above ground consisted of a wooden framework of posts and beams covered by a roof of reeds. In the centre was set a large hearth. In other parts of the house there were remains of small fires used for cooking food, each of which could have been used by a separate family. One hundred to one hundred and twenty-five people probably occupied this vast dwelling. Domestic finds occurring for the most part near the fires consisted of a large number of flint knives, scrapers, spokeshaves, and arrowheads. Polished axes were rare. Pottery vessels had a pointed base and were covered with incised decoration, often roughly coloured with red matter. The inhabitants were mainly occupied in hunting and fishing. The site is dated to the late fourth or early third millennium B. C. Remains of this culture are found in Chorasmia and West Kazakhstan.

The Caucasus

...[123]

Remains of farmers of the Copper Age are not only known in the Ukraine and Moldavia, but have also been discovered in central Asia in Turkmenia, in Transcaucasia, and in the north Caucasus. The fullest picture of farmers' settlements of the third millennium B. C. is obtained from Transcaucasia from the excavations at Shengavit near Erevan. This ancient settlement is situated on a raised promontory on the left bank of the river Zanga. Even before excavation large circles about 7 m. in diameter were clearly visible on the surface, especially after rain. It appears that these are the remains of circular central rooms of houses which were adjoined by rectangular rooms. The walls were built of large sun-dried bricks set on a stone foundation. The floor of the central room was laid with pebbles arranged in [124] concentric circles. In the centre was a large stone on which a post rested to support a conical roof of struts and wickerwork. Near this stone was placed a shallow circular clay hearth about a metre in diameter, decorated with relief ornament on its edge. Querns and large pots containing wheat and barley grain were found by the hearth. Besides arable farming the inhabitants also reared cows and sheep. Stone and clay figures of animals, a schematic and very stylized female statuette, and a miniature model of a hearth were found in the houses.

The pottery was black or occasionally red with its surface polished to a shine and bore grooved and applied geometrical decoration. There were numerous flint and polished stone tools, bone pins, arrowheads, and beads, and also certain copper tools. Eneolithic settlements in the Caucasus generally similar to Shengavit are known from a number of sites, as well as in Armenia and Georgia. In the north-east Caucasus a similar site belonging to the second half of the third millennium B. C. was excavated at Kayakent (about 250 km. north-east of Tiflis) but it was fortified. The houses were constructed of stones and wickerwork, plastered with clay. Agriculture was the basis of the economy. The stone querns, pestles, and sickle flints, and the finds of bread cereals in the baked clay of an oven and in the clay of the pot sherds testify to this. Stock-rearing played an important part in the economy, above all sheep-breeding.

In the north Caucasus, especially in the Kuban valley, a series of important Copper-Age barrows were excavated in pre- Revolutionary times, among them the famous Maikop barrow of the middle of the third millennium B. C. [These include a number of rich finds. The Maikop barrow contained silver vessels decorated with animals and a series of copper tools, especially shaft-hole axes and adzes similar to tools from Mesopotamia. This is important for dating in south Russia. T.]

Soviet archaeologists have made a thorough study of the results of the excavations of the so-called 'great barrows of the Kuban' their date, and so on. The barrows may be referred to the second half of the third millennium B. C. and are graves of tribal chiefs.

No settlement of this period was known until recently. At Dolinsk (about 200 km. north of Tiflis) the results of the excavation of a Copper-Age settlement threw light on the [125] everyday life of this period. The site is situated on a high river terrace and extends for 1,500 m. It was made up of separate groups of huts, large wickerwork cabins with walls plastered on both faces with clay, a beaten clay floor, hearths in deep holes, and storage pits. The economy was agricultural; hoes, querns, and sickle flints were found. The ground adjoining the huts was cultivated.

The older steppe cultures of the Lower Don, Dnepr, Volga, and southern Siberia belong to the Copper Age. These will be dealt with in the next chapter. [These barrow cultures are in part contemporary with the cultures described in this chapter. T.]

Chapter 4.

The Bronze Age

[127] THE first metal objects were hammered out of natural copper. Metallurgy was born later when people grasped that copper can melt, that by applying strong heat it becomes a liquid, and that in this state it can be given a desired form in which it will harden on cooling. This outstanding discovery, although an important advance in the development of the productive forces, produced no radical changes in technique. Pure copper, soft and pliable, could not replace stone tools. Tools cast from bronze, an alloy of tin and copper, were much more reliable than copper ones, so finally bronze took the place of copper as an industrial metal. The adoption of bronze could not lead to the complete rejection of stone for tools. This only happened with the discovery of iron-working.

In the Bronze Age stock-rearing became a wholly independent branch of the economy. While the central and northern forest zones of the USSR were still occupied by tribes of hunters and fishers in the steppe and wooded steppe and in the Caucasus and central Asia hunting had become unimportant and stock-rearing had become the main source of meat. A subdivision into pastoral tribes took place. This important social division of work led to the development of barter between tribes. Successes in the sphere of material production and the development of social division of labour and barter led to changes in the social relationship between peoples. The old matriarchal clan with its equality of the fields was transformed into a new patriarchal clan. The man became head of the family. Accumulated riches were a stimulus to robbery or warlike raids of one tribe upon another. At the end of the third millennium B. C. pastoralists of the southern steppes began to use metal tools. In the forest areas they were not acquainted with metallurgy until somewhat later.

Pre-Revolutionary Russian archaeology accumulated a substantial amount of Bronze-Age material but study of the Bronze Age developed very unevenly. In many areas nothing [128] was known about it. In the early years of this [20th] century V. A. Gorodtsov worked out a scheme for the southern steppes and later for the whole area of the USSR.

The Caucasus

In the Bronze Age of the USSR an outstanding part was played by the tribes and peoples of the Caucasus.

Remains of the Bronze Age of Transcaucasia have been comparatively well-known for some time. Objects of high quality of the Late Bronze Age have long adorned museums. Yet as little as twenty years ago nobody knew anything of the earlier stages of the development of metallurgy in the Caucasus. and it was even supposed that metallurgy was brought into the Caucasus from outside: from the west or east by a wave of Late-Bronze-Age invaders.

Soviet archaeologists have found the first links in the chain of general development of metallurgy in the Caucasus and proved that this process was here ancient and indigenous. The Caucasus contained not only copper ore but also the necessary ores to make alloys: antimony, found within the Caucasus itself, and tin, found in neighbouring Transcaucasia. The wealth of the Caucasus in natural ores is one of the basic causes of the creation here of a powerful centre influencing the development of the Bronze Age in the whole of eastern Europe.

It has been established that during the Caucasian Bronze Age there was a series of important local metallurgical centres which were using the local ore and making metal objects which at times were carried far beyond the boundaries of the area. It is necessary to remark that in the third millennium B. C. the Caucasian tribes knew not only copper and bronze, but also gold and silver, generally used to make ornaments and vessels.

Some of the oldest grave remains of the Caucasian Bronze Age are the dolmens of the western Caucasus, especially those at Abkhazi excavated in 1934-7. Dolmens are constructions of rough stone slabs intended for collective burial, and the same dolmen was used for later burials over a long period of time. The oldest burials in dolmens at Abkhazi belong to the beginning [129] of the Copper-Bronze Age, but they were in use until the Late Bronze Age.

Dolmens fall into the group of structures called by archaeologists 'megalithic' (Greek *megas*, big and *lithos*, stone). 'Menhirs' free-standing stones, and the so-called

'cyclopean', walling, built of large roughly dressed stones (up to 2 m. high) laid without mortar, are also called megalithic constructions. Cyclopean walling is so called because in antiquity there was a legend about building by the one-eyed giants, the Cyclops. From the middle of the second millennium B. C. warlike collisions between tribes and separate communities became more violent. Therefore settlements were constructed on high inaccessible hills and surrounded by walls of cyclopean construction behind which the population and cattle could be protected. Cyclopean constructions are known in several parts of the USSR; in Transcaucasia they are found in Azerbaijan, Georgia, and Armenia (best studied in the latter area). Not only the excavations of these remains in the Caucasus but also their inter-relationship and description have great scientific importance.

Especially outstanding remains of the Caucasian Bronze Age are the barrows in one of the oldest cultural areas of Georgia, Trialeti (about 110 km. south-west of Tiflis), excavated in 1936--40 and in 1947. These are burials of chieftains of a rich pastoral tribe living in 1800-1700 B.C. Under the barrows burial shafts 7-9 m. deep were found, sometimes faced with stones. In the centre of such a grave chamber were placed the ashes of the burnt corpse, sometimes on a massive wooden four-wheeled cart. Around the cart lay remains of large- and small-horned cattle and also a large quantity of richly decorated clay pots. In one barrow twenty-four pots were found, red and yellow in colour painted in black or brown, and also black pots with incised decoration filled with red colouring. Most of the tools were made of bronze but some silver daggers were also found. Arrowheads were made of flint as usual. The graves were very rich and much gold and silver was found in them; indeed the objects of precious metals from this site are especially remarkable. Amongst these the massive gold goblet decorated with inset red stones of agate and turquoise and with [130] fine filigree ornament is especially remarkable (Pl. 4).

Trialeti (Georgia). Bronze Age gold goblet decorated with filigree and inset jewels



With the goblet in the same grave was found a little silver bucket with a gold handle and decorated with drawings of a scene showing the hunting of animals in a forest. The most interesting find of all was a silver goblet standing on a small foot with a chased design in two horizontal bands. In the lower band is shown a file of deer, and in the upper a procession of twenty-three figures bearing blocks (*kubki*) in their hands. These are strange beings with human bodies and animal heads and tails. The procession is going towards a figure seated on a throne near a sacred tree close to which there are two altars and animals for sacrifice.

Not one of the very large barrows at Trialeti (more than forty were excavated in all) contained any trace of human sacrifices, such as are found in the later Scythian burials of the Iron Age. Besides the rich graves like Trialeti there are other poor cemeteries of the

same period.

The Trialeti barrows are not unique, for in Transcaucasia there are other similar sites. An even older burial was dug at Kirovakan (about 200 km. south of Tiflis). The grave consisted of a great trench covering 30 sq. m. and more than 3 m. deep. At the bottom of this pots were placed similar to those from Trialeti, and also a gold cup engraved with three pairs of lions (Pl. 5a), and four silver vessels.

Kirovakan (Armenia). Bronze Age gold bowl ornamented with animals.



The ashes of the dead man had been poured into a wooden bier decorated with bronze nails plated with silver, and with him were placed his rich necklace of carnelian and gold beads. In the same barrow a bronze axe- adze, a flat axe, three daggers, and a spearhead were found.

Bronze-Age settlements in Transcaucasia are still inadequately studied but the numerous cemeteries excavated in various areas have proved extraordinarily varied. The most interesting monument in central Georgia is the ancient cemetery at the monastery of Samtavro (see p. 221). Excavations were begun in 1871 but systematic planned study was not made until 1938 which allowed the site to be assigned its proper place in the series of monuments. The study was undertaken by a section of an expedition of the Georgian Academy of Sciences. One thousand eight hundred graves were investigated dating from 1000 B.C. to A.D. 800. Bronze-Age graves were found containing [131] a great quantity of pottery vessels and bronze objects: axes, daggers, flat belt clasps, and so on. Especially deserving mention are the beautiful examples of small sculpture, cast figures of aurochs and leopard.

One of the oldest centres of mining activity and metallurgy in the Caucasus was found

near Gebi (in Georgia) in 1948. Galleries for mining antimony and furnaces for reducing the ore were found here. A great quantity of metal objects of hammered or cast antimony bronze [copper with antimony added instead of tin. T.] have been found. At the cemetery of Brila 9 km. away such objects were especially numerous. The lower layer of the cemetery is referred to about 1500 or 1000 B. C., the date being controversial. Cemeteries of this period discovered in the other mountainous areas of Transcaucasia belonged to pastoral tribes, living close to the source of raw materials for metallurgy, as a result of which metal-working skill developed rapidly. Objects attesting a highly-developed metallurgy and metal-working based on local ores are found in the graves.

In Armenia a most interesting complex of Bronze-Age sites was examined in 1951-2 on the dried-up area of Lake Sevan (the sites had evidently been under water for a long period when the level of Lake Sevan was higher than now). These were burial fields, in the majority of cases of stone cists containing one, two, or occasionally three bodies in a contracted or sitting position. Each burial was accompanied by 3-5 jugs, bronze ornaments, daggers, carnelian beads, and so on. Further burials from the end of the Late Bronze Age (eighth century B.C.) were found in pits at Astkhodzor (Armenia). In one of these a man was found lying on his side with two bronze belts, one worn across the shoulder. Together with these were bronze daggers, bracelets, beads, and other ornaments. Eleven skeletons of people buried in a sitting position were found in this same grave. Evidently this was the grave of a chieftain buried with his slaves and can be referred to the time of the birth of class society.

In 1935 large stone cists were excavated at Kirovakan, some of which contained collective burials. Thus in one grave three skeletons of adults and one of a child, all in a flexed position. [132] were found, together with the complete skeleton of an ox. There were twenty-three pots above the skeletons. This cemetery may be referred to the ninth to eighth centuries B. C.

Even in pre-Soviet times a good deal was known of the painted pottery from Kizil-vank (in Azerbaijan), and in 1926 two expeditions worked here. Stone cists were excavated containing skeletons lying on the right side with the knees drawn up. Together with copper and bronze objects black polished pots and painted pots were found in the graves. This Kizil-vank culture characterized by pottery decorated with geometric ornament and spouted vessels, like tea-pots, covers the whole of the Nakhichevan ASSR (south of Erevan near the frontier). The cemeteries belong to the fourteenth to eleventh centuries B. C. The cemetery at Shakhtakht belongs to the very end of this period. In one grave amongst thirty different pots there was one painted in different colours showing animals and birds. This site belongs to the end of the second millennium B. C. , the period of the development of semi-migratory pastoralism.

The two villages of Kedabek and Khojal in Azerbaijan have given their names to a culture characteristic of this area from the tenth to the seventh centuries B.C. Similar sites are spread over the greater part of central Transcaucasia. The characteristics of the culture are stone cist burials, earthen barrows of varying sizes, stone cairns, cromlechs, and menhirs. Grave goods consist of pots decorated with incised ornament, sometimes filled with gypsum, and a great number of bronze objects. To this period belong also the forts built of cyclopean masonry.

The excavations on Bronze-Age sites around Khanlar (about 200 km. south-east of Tiflis) were especially valuable. The houses were semi-subterranean and rectangular in shape, with walls faced with stone, divided internally by partitions into four rooms with a hearth in each. The houses examined gave material indicative of the economy of this ancient period. Besides the stones of wild fruits, stones of peach were also found testifying to the existence of orchards....

At the end of the Bronze Age and beginning of the Iron Age, that is about 1000 B. C. in this area, bronze objects distinctive of the Koban culture are found over a wide area of the [133] Caucasus. This culture takes its name from the village of Koban (about 200 km. north of Tiflis). This culture has been studied both before and since the Revolution. ...

The Koban culture extended over the foothills and mountains in the central part of the northern Caucasus and existed up to the seventh century B. C. Characteristic of this culture are special bronze axes, long, narrow, and curved, as well as copper vessels and varied ornaments such as copper pins, wide plated belts, fibulae (safety-pin brooches), bracelets, and so on. Burials were placed in stone cists, sometimes surrounded by stone circles, while burials in a wooden framework are also known. Simple pots, usually with incised geometrical decoration and varied ornaments, headgear, beads, and copper bracelets were placed in the graves. That mourning ceremonies took place for the dead is shown by ritual hearths and holes in the graves. The graves were set out in rows. Women's and children's burials were put next to a stone circle surrounding a man's grave.

The basis of the economy of the Koban tribes was pastoralism. Previously all Bronze-Age remains in the Caucasus similar to the Koban remains were referred to this culture, but now similar local cultures are distinguished by a number of features. [The author then mentions several local variations of this culture in the area of the Caucasus. T.]

Chapter 5.

The Early Iron Age

[152] THE discovery of iron is the beginning of the greatest technical transformation in the history of humanity. Iron ores are found almost everywhere, and yet this metal, the most widespread throughout the world, was not used by man until a very late period. This is because it is difficult to work; it easily becomes oxidized or rusts; and it is generally found combined with other elements. It is more difficult to extract than copper. Without the application of a strong draught requiring mechanical contrivances iron will not melt, and without a special furnace with apertures for inserting bellows not even small quantities of iron could be obtained. Moreover the melting of iron, turning it into a liquid, was not possible for ancient metallurgists since this required the very high temperature of 1530° C. So the metal was not extracted as a liquid (as copper had been) but in a soft state and objects were not cast but hammered from it. So long as iron was rare only ornaments were made from it but from the beginning of the first millennium B.C. it was widely used for making weapons and working tools. [The Hittites are believed to have discovered a process for working iron 500 years before, but it was not widely used. T.]

The softness of copper and brittleness of bronze prevented them from entirely superseding stone as a material for tools. Only iron rendered these tools finally unnecessary and greatly extended men's control over nature. 'Iron permitted the cultivation of large areas, the clearance for fields of broad forest expanses; it gave the artisan tools of such hardness and sharpness that no stone or metal then known could compete with them' (Engels, *Origin of the Family*).

The technical transformation brought about by the use of iron led in the course of time to the reorganization of the whole of social life. Owing to the growth of productivity surplus products came into existence which were the basis of the exploitation of man by man. Slavery developed in the Iron Age. One of the sources of the accumulation of valuables and the growth of [153] property inequalities was the developing trade of the Iron Age. The possibility of enrichment by means of exploitation gave rise to war with the aim of robbery and enslavement. [This of course is a pivotal tenet of classical Marxism. T.]

Soviet archaeologists studying the remains of the Early Iron Age deal with the period up to the formation of class society and the state, together with which appear writing and consequently history, based not only on archaeological but also on written sources.

However in Mesopotamia, Egypt, India, Greece, and China, ancient slave-holding

civilizations had been born long before, which reached a high level of development in the Eneolithic and Bronze Ages and mastered the art of extracting and working iron earlier than elsewhere. An Iron-Age division is generally not included in the history or history of culture of these countries. The use of the expression is limited to the cultures of the primitive tribes of Europe and Asia living to the north of the areas of ancient civilization. In this period these tribes lived in the stage of the break-up of the primitive social system and stood on the verge of the formation of class society and the state.

The Early Iron Age is very short in comparison with the preceding periods.

In the USSR iron first appears in significant quantities in Transcaucasia at the beginning of the first millennium B.C. The metallurgy of iron spread rapidly amongst the tribes of Transcaucasia, into the southern steppes of the European part of the USSR, and into central Asia, where it became one of the fundamental causes of the formation of the most ancient states in the USSR (see Chapter 8).

The Scythians

The spread of the use of iron in the steppe zone of the European part of the USSR is closely connected with the history of the Scythians, a people about whom classical Greek authors wrote much and enthusiastically, and modern historians also have written thick volumes. However the history of the Scythians is so complicated and forms such a tangled skein of [154] varied problems that, in spite of abundant sources for its study, the 'Scythian problem' remains an intransigent subject that is still far from settled.

Interest in the Scythians was aroused in Russian historiography a long time ago. The Smolensk priest Andrei Lyzlov wrote a *History of the Scythians* in 1692. Much attention was paid to the Scythians in the eighteenth and nineteenth centuries, owing to the assumption that they were the proper and direct ancestors of the Slavs and so ancestors of the Russian people. The first excavations of Scythian barrows that were important scientifically took place in the 1760s. From then on the attention of Russian archaeologists was firmly concentrated on their barrows as well as the finds of outstanding artistic and historical importance that they yielded. [There is a large literature in English, French, and German on the Scythians of which the most valuable is the monumental volume of the late Sir Ellis H. Minns, *Greeks and Scythians*, 1913. T.]

In the rich 'royal' barrows excavated in the nineteenth century fine weapons, rich vessels, slaughtered male and female slaves, and quite commonly dozens of sacrificed horses were found. The latter had been sacrificed at the time of burial and placed around the tomb and in the body of the barrow mound. The remarkable objects of jewellery,

hundreds of gold objects, sometimes made by Greek craftsmen, are very interesting not only from the artistic point of view but also as historical evidence. The silver vases from the barrow at Chertomlyk (near Nikopol in the south Ukraine), the gold vase from the barrow at Kul-Oba (near Kerch in the Crimea), and the gold comb from the barrow at Solokha (near Nikopol), with their numerous representations of Scythian life, have achieved special fame. [These famous objects are now at the Hermitage in Leningrad. There are many published pictures of them. T.]

Soviet archaeologists have received a vast scientific inheritance from the preceding period of Scythian studies. The richest single collections in the world are gathered in the museums [mostly at the Hermitage in Leningrad. The collection there is of astonishing richness. T.]....

The Imperial Archaeological Commission did not lack the means for the excavation of the Scythian royal barrows, [155] excavations which made it possible to fill the museums with luxurious collections, but in the pursuit of 'royal' remains it completely lost sight of the importance of other archaeological remains. As a result, no attention was paid to areas very important for solving the 'Scythian problem' while Scythian settlements were hardly dug at all.... Besides these matters Soviet archaeologists have also set themselves the task of solving the problems of pre- Scythian times.

According to the story of the ancient Greek historian, Herodotus, who wrote in the fifth century B.C., the Scythians replaced the Cimmerians who at one time had controlled the south Russian steppes. The Cimmerian culture is referred to the Late Bronze Age, but so far it has been little studied. Gorodtsov lumped together under the name of Cimmerian archaeological material found north of the Black Sea in hoards or as chance finds, but not all this is specifically Cimmerian. To distinguish in this material what is Cimmerian is difficult, for Cimmerian graves too are still not defined. Many flexed burials found in the lower layers of Scythian barrows and in the cemeteries of Greek town colonies and also burials in stone cists found between the Dnepr and Kuban area may probably be regarded as Cimmerian. At the same time the question has been raised in scientific circles but not settled as to a possible genetic relationship between the Cimmerians and the bearers of the Catacomb culture. [The identification of tribes named by classical authors with known archaeological remains is always difficult and often baffling in both England and Russia. T.]

Settlements of the Cimmerian period are hardly known. A pre-Scythian settlement of the beginning of the first millennium B.C., that is the final Bronze Age, has been excavated on the shore of the White Lake estuary. The houses discovered here are reminiscent of the semi-subterranean buildings of the Andronovo culture.

A Bronze-Age settlement at the ancient Greek town of Cimmericum on the shores of the Black Sea (on the straits leading into the Sea of Azov) can also be referred to the Cimmerians. Greek writers connected the name Cimmericum with the Cimmerians who had once lived there. [It is possible that the word Crimea has a similar derivation. T.]

[156] On the right bank of the Dnepr in the basin of the river Tyasmin a series of remains of the Cimmerian period has come to light. Amongst these are a group of small earthworks of the eighth to the first half of the seventh centuries B.C. consisting of tribal fortifications abandoned in the seventh century B.C. Then there was a change to newly-constructed large hill-forts. One of these from late Cimmerian times was investigated on the right bank of the little river Chernolesk (300 km. south-east of Kiev). It was surrounded by three concentric banks and ditches. In the area between the second and third bank was a barrow cemetery containing 250 barrows which was later than the hill-fort. In this hill-fort (unlike other similar sites) occupation did not cease in Scythian times.

The discoveries at Chernolesk and similar sites have special historical significance, for they provide an explanation of the origin of culture of the Scythian period on the wooded steppe. It has been established that this culture had its roots in the Bronze Age. The local agricultural and pastoral population that had lived for centuries on the wooded steppe did not vanish when the Scythians appeared.

Although the ancient authors preserved legends about Cimmerians being driven out by Scythians, it is doubtful whether the invasion of the Scythians was accompanied by extermination of the local population. Traces of culture of the preceding period continued into early Scythian times.

Sites referred to the Cimmerians contain few iron objects. Iron swords and daggers become widespread with the arrival of the Scythians in the north coastal area of the Black Sea. The first reference to Scythians in written sources is from the end of the eighth century B.C., but the material culture of this time differs little from that of the Late Bronze Age in the same area. Only in the seventh century does there appear a culture which may be properly called Scythian. Iron wholly replaced bronze only with the complete development of the culture. With the establishment of Scythian control in the Black Sea area at the end of the seventh and beginning of the sixth centuries B.C., the Iron Age came into full bloom. Whence they came into this area is unknown. As was said above, there is a hypothesis that they were descendants of tribes of the Timber-Frame (*Srubnaya*) [157] culture. With the change from settled pastoralism to nomadic life they would have thrust forward westwards from the lower Volga area into territory occupied at the end of the Bronze Age by Cimmerians between the southern Bug and the Sea of Azov. Probably they then became known to ancient authors under

the title of Scythians.

Some similarity of culture over a fairly broad area has led some archaeologists to use the term 'Scythians' incorrectly. Ancient Greek authors were also guilty of this. Together with the geographical term Scythia, applied to a definite area where the Scythians lived, they used the word in an ethnographic sense, applying it to peoples living beyond the limits of Scythia proper, so long as their customs and way of life resembled those of the Scythians. Following some Greek authors, pre-Revolutionary historians and archaeologists attempted to unite into one cultural and ethnic entity the various tribes of the period. ...

In the Black Sea area there were three basic cultural areas in Scythian times: (1) An especially Scythian steppe culture on the lower Bug, the lower Dnepr, and in the Crimean and Azov Sea steppes. Here there was a union of related, partly agricultural and partly nomadic tribes, with the nomadic 'royal' Scythians at their head. Their language was evidently one of the north Iranian group of languages. They were united by language, war customs, and so on. (2) The culture of a series of agricultural and pastoral tribes of different origin found in the wooded steppes [i.e. west of (1) T.]. Very probably part of this population were predecessors of the Slavs. (3) The culture of the Sindi and Meotae on the north side of the river Kuban and to the east of the Sea of Azov (i.e. east of (1). T.).

All the three cultures enumerated have features in common in peculiarities of weapons, horse ornament, and the so-called animal style in their art. This unity is explained by the cultural and trade connexions between the steppe tribes who were the chief transmitters of Scythian cultural elements. These elements were created not only by the Scythians themselves but also by the various tribes in the southern part of eastern Europe. Scythian influence was felt outside their area on the west side of the Urals, in Siberia, central Asia, and the Caucasus. [158] Such is the answer at the present time to the question of the distribution of the Scythians. Another important matter in the history of the Scythians is their degree of social development....Scythian chiefs gradually turned from tribal chieftains into kings of slave-holding states. Evidently such a state was the kingdom created in the fourth century B.C. by Ateï. ...

Soviet archaeologists have made a great contribution in the field to the study of Scythian settlements. Hill-forts of the period have been excavated in many areas.

The most important monument from Scythian times is the Kamenskoe (Stone) hill-fort on the Dnepr (about 130 km. south-west of Dnepropetrovsk). It was evidently the centre of the state created by Ateï, but a settlement first developed here at the end of the fifth century B.C. and lasted up to the beginning or the second century B.C. The site consists

of a vast fortified settlement with an area of 12 sq. km. It was a town chosen by Scythian metallurgists, founders, and blacksmiths. Everywhere on the site iron and copper slag, and remains of furnaces and crucibles were found and many places yielded traces of the craftsmen's workshops. Ore was obtained from a site 60 km. to the west. The inhabitants of Kamenskoe hill-fort were not only craftsmen, for in the citadel there were fine houses. The citadel comprised one-thirtieth of the total area of the site. The houses consisted of structures with walls of vertical logs set in the ground. Sometimes under the floors of the houses there were semi-subterranean basements with beaten clay hearths. Houses and basements were usually subdivided by log walls into three or four rooms with an area of 15-20 sq. m.

The top of the defensive bank was defended by a wall of sun-dried brick. Near the hill-fort were undefended Scythian villages also with traces left by ancient smiths. Here, evidently, there was an area of ancient Scythia specializing in metal-working, a permanent settlement of craftsmen-smiths in this country of nomads.

There is an interesting hill-fort at Varvarovka (200 km. north-east of Odessa) on the right bank of the Bug. Large bell-shaped pits were found here evidently intended for storing grain although they contained hearths and chimneys. It must be [159] supposed that they were used as grain pits for a short time and later more or less accidentally as dwellings. This hill-fort came into existence in the fourth century B.C. and went out of use about 200 B.C.

The settlement of the Scythian period at Shirokaya Balka (Wide Gorge) on the banks of the Bug estuary 1.5 km. south of the Greek colony at Olbia has especial interest. The living quarters consisted of rectangular earth-houses, their sides faced with stone flags set in a clay mortar. A well-equipped corn store was found *in situ* here and also a special place with an oven of complicated construction for drying the grain. Evidently this settlement preceded the founding of Olbia and ceased to exist in the middle of the fifth century B.C. It was swallowed up by Olbia, behind whose walls the inhabitants of the settlement could find protection.

The excavations at the hill-fort at Sharpov yielded material throwing light on life of the time. The banks of the hill-fort were of complicated construction, for a layer of burnt wood was found in them. Adjoining the bank is a deep dry ditch with smooth slippery sides. The entry was reinforced by posts on either side.

At the impressive Nemirov hill-fort (250 km. south-west of Kiev) in south Podolia, excavations carried out over many years have explored the ramparts and huts within. Settlement started here in the seventh century B.C. and continued for 150 years. The formidable banks were only thrown up in the sixth century B.C. The foundation of the

bank consisted of large stones and thick branches covered over with clay. Huts consisted of circular earth-houses 4.5-7 m. in diameter with vertical walls about 1.5 m. high. In the centre of each hut was a thick post on which the conical roof rested. The earth walls were faced with branches set vertically. The clay beaten hearth was situated on a flat floor near the centre of the hut. The earth-houses were laid out at an appreciable distance from each other. Numerous grain and refuse pits of bell-shaped form were found in the intervening areas. [Similar bell-shaped pits are very characteristic also of Iron-Age sites in the chalk areas of southern England. T.]

The last two hill-forts lie on the edge of the Scythian area [160] proper, in the region where Herodotus placed various agricultural tribes. These tribes resembled the farmer Scythians culturally, but were evidently distinguished from them by a more primitive level of economy and of social relationships.

Excavations at Bolshaya Sakhamo (the Big Sugar-loaf) hill-fort in Moldavia yielded interesting material for the study of defensive constructions. In the course of five construction periods the height of the bank was raised from one to four metres. In front of the wall proper were found additional defensive works in the form of outworks projecting 35-120 m. The purpose of these was to prevent direct assault on the ditches and walls.

Scythian barrows yield a vast quantity of archaeological material, because of the burial rites then practised. The large 'royal' barrows were mostly excavated in pre-Soviet times. Soviet workers have concentrated attention on the excavation of small groups of burials. Such Scythian and Sarmatian barrows have been excavated in the Ukraine, while a great number of fresh excavations have been undertaken in the lower Volga area, the west side of the Ural river, and on the burials without barrows of the Meotae and Sarmatians north of the Kuban river.

We will describe the Scythian barrows near Nikopol (120 km. south-west of Dnepropetrovsk). They are not of impressive size, but do in fact repeat the spectacular burial constructions of the 'royal' barrows; instead of being 15-20m. high, they scarcely reach 1 m. In place of grandiose shafts with an underground chamber, they hold narrow pits from one side of which opened a fairly large chamber, a catacomb, partitioned off from the entry shaft by vertical stakes, wickerwork, or occasionally by stone flags. The skeletons, one or several, lay on their backs, head to the west. In the body of the barrows there were sherds of wine *amphorae* left from the funeral feast. [Wine and wine *amphorae* were one of the most important imports from the classical world. T.]

The Scythian men were warriors, mounted archers. Short iron swords (*akinakes*) and six-foot lances with large iron points are found in their graves. Their main weapon,

however, was the bow and arrow, so that in the men's graves lie bronze or less [161] often iron arrowheads, sometimes more than 100, occasionally 200-400. In the early Scythian period those with two fins and a tang to fix in the shaft and sometimes with a barb are common, but later they became three-sided or three-finned. The horse served its master after death in his life beyond the grave. In the 'ordinary' barrows there are not so many complete horses as in the 'royal' barrows; a piece or parts of the horse's skeleton were placed in the grave to symbolize the sacrifice of a horse.

Women's burials are similar to men's in both ritual and type of construction. Only the objects accompanying a woman are different. Personal ornaments are found in the shape of glass beads, less often gold beads and rings, bronze rings and bracelets. Loom weights, iron needles and knives, as well as querns (hand mills) of sandstone or granite are commonly found.

The history of the Scythians in the Crimea is a subject on its own. They appeared here at the same time as in steppes on the mainland, and led a nomadic life up to the beginning of the third century B.C. From this century onwards they built towns and fortified sites, settling in the river valleys, and around the lakes and sea. They were engaged in agriculture and stock-rearing and had developed crafts. A trade in wheat and raw materials grew with the ancient cities of the Black Sea and Mediterranean. On the western shore of Crimea in Eupatoria a significant number of fortified Scythian towns have been traced, the majority belonging to the third century B.C. and later. All these sites are surrounded by defensive walls made of rough stone blocks. The smallest of these has an area of 55 by 44 m. while the largest measures 120 by 90 m. and is surrounded by a double line of walls.

The settlement at Kara tobe (west coast of Crimea) is similar to the hill-forts described above both in time and by the character of its cultural remains. It is distinguished by the absence of defensive walls or banks. A special type of hut structure was found here consisting of a circular tent 3.6 m. in diameter. Its base was dug into the clay, and above this two walls of inclined poles resting against each other were erected. The whole structure had the appearance of a tent designed for prolonged occupation. Flat hearth stones lay in the centre of the sunken floor. Next to the tent a grain-storage pit was situated.

[162] In the third to second centuries B.C. the Scythians disappeared from a large part of the Black Sea steppe zone. The territory of their former broad empire was now confined to the Crimea and the lower regions of the Dnepr and Bug. The Scythian capital was transferred from the Dnepr to the Crimean steppes. This was the town of Neapol (to distinguish it from other Neapols it is referred to as the Scythian Neapol). Its territory adjoined present-day Simferopol on the east. The town was surrounded by a wall of

large undressed stones set in clay mortar, which was originally 2.5 m. thick but was later thickened and strengthened by reinforcements. It was made higher and very strong so that the full final width reached 8.6 m. or in some places 12.4 m. The passage through the principal town gates was in the middle of the southern line of the wall. It was protected on the east and west sides by towers. Besides these gates the town had two others.

Inside the town residential stone buildings were excavated. Many were roofed with tiles and had walls up to one metre thick, carefully built. The insides were plastered and sometimes painted. Many of the houses of wealthy people had several rooms and annexes for stores with adjoining courts containing grain storage pits in which grains of wheat, barley, and millet were found. Both agriculture and stock-rearing were practised. To the west of the main town gates a stone mausoleum of the Scythian aristocracy was found. In it there were seventy-two skeletons, mostly of men. The first burial was probably a king, for whom the stone tomb had been erected, while warriors were buried in large wooden cists. Four horses had been killed and buried with the warriors. Three-finned iron arrowheads, swords, and numerous gold plates in the form of stars, lions, bees, tortoises, and so on were found in the graves. Another find was a cut stone of dark red cornelian in the form of a scarab (Egyptian seal), on the reverse side of which had been skilfully cut the head of a bearded Scythian in a tall hat. There were some 1,300 objects of gold alone in the mausoleum.

Burial vaults hewn out of the rock were also found, although all had been robbed in antiquity. The painted walls illustrated an unfamiliar form of Scythian art. In one of the vaults the paintings were enclosed in ornamental borders of triangles and [163] red arrows. Among the paintings one worth mentioning shows a carpet with a chequered pattern of yellow, black, and red squares, and beside it is a bearded Scyth in a tall hat and soft boots. He wears an ample cloak with hanging sleeves and is playing a Greek harp. In the middle of the wall a Scyth is shown riding out on horseback to hunt; in front of him are a black and a red dog. They fling themselves on a wounded wild boar. In one of the niches a Scythian house is shown, with a gabled roof crowned with what appear to be two horses' heads carved in wood.

Archaeological work in the Crimea has made a significant addition to our knowledge of the late Scythian period. Formerly this period in the history of the Scythians was regarded as one of decline of the state and its subjection by the incoming Sarmatian tribes, but now Soviet archaeologists have proved that after the second century B.C. the development of Scythian society continued. [The Sarmatians were a people who moved in from the east at this period and conquered the area formerly held by the Scythians. T.]

Outside the Crimean peninsula the area around the lower Dnepr formed part of the late

Scythian kingdom. A whole series of small fortified settlements has been discovered here dating from the second century B.C. to the fourth century A. D. Their inhabitants were engaged in agriculture and stock-rearing, The development of trade with the Greek colonies played a large part in the economy of the inhabitants of this area. In the second century A. D., owing to the decay of this trade and growing pressure from Sarmatian tribes, many of the settlements on the lower Dnepr ceased to exist, but some survived until the fourth century A. D. when the intrusion of the Huns finally put an end to the agricultural settlements of this area.

The Sarmatians

The Sarmatians, who replaced the Sythians in the Black Sea steppes in the second century B.C., had been known in earlier times. From the sixth to the third centuries B.C. they lived between the rivers Don and Ural. By the first century B.C. they had spread as far west as the Danube. They created large united [164] tribal groups with their characteristic culture, and these have an important place in the history of the south European part of our country. They occupied a wide steppe area up to the Caspian, as far south as the Caucasus Mountains and the old Scythian area between the Don and Dnepr. Planned and systematic research on a great mass of Sarmatian remains, earthworks, and burials, especially on the Volga, Don, and Kuban steppes, has been one of the achievements of Soviet archaeologists. At the present time the best studied of the oldest Sarmatian sites lie in the area stretching eastwards from the Don. As a result of field work in the southern area west of the river Ural and in the lower Volga area, hundreds of Sarmatian graves have been examined, dating from the sixth century B. C. to the fourth century A. D. In the Sarmatian barrows beyond the Volga, archaeologists have found confirmation of reports of ancient authors that matriarchal survivals existed among the Sarmatians. Thus in many groups of barrows the central point of the mound is occupied by the burial of a woman warrior or priestess. In these women's graves, weapons and stone altars with legs carved in the shape of animals' heads are found.

In the last fifteen years hill-forts on the north-east edge of the Sarmatian world have been excavated on the banks of the rivers Iseta and Mias and other rivers south-east of the river Ural.

An interesting monument of the Sarmatian period is the hill- fort of Chudaki (the queer fellows) (about 350 km. south-east of Sverdlovsk). The site has an irregular oval shape and is surrounded by a ditch up to 2 m. deep. The houses discovered here consisted of two rectangular rooms at front and back, covering a total area of about 200 sq. m. The floors were let slightly into the ground and the walls consisted of posts driven into the ground reinforced outside by horizontal branches or logs. The roof was conical with a

hole in the centre to allow smoke to escape. On the outside the walls and roof were covered over with soil to give greater warmth. The general character of the finds is similar to the finds from the Sarmatian barrows on the south-west side of the river Ural, especially the round- bottomed pots.

In the study of the Sarmatian tribes and their culture one of the intentions of Soviet archaeology has been the formulation [165] of a series of general historical problems, for example the question of their origin and the area where the formation of the tribes took place. The basic territory involved is between the Don and the lower Volga area. Archaeological and especially anthropological material has made it possible to establish a genetic relationship between the early Sarmatians and the bearers of the Bronze-Age Andronovo culture. Soviet archaeologists have worked out a chronological classification of the remains of Sarmatian culture, established the stages of development of the tribes, delimited the areas occupied by various tribal unions, and in several instances have identified local groups of remains with the larger tribal formations known to us from written sources.

In the second century B. C. one of the Sarmatian tribes, the Alans, began to play an important part in history, and gradually their name replaced that of the Sarmatians.

At the same time as the Sarmatians controlled the Black Sea steppes in the western areas, in the middle and east side of the Dnepr there were spreading the so-called 'urn fields'. These belonged to agricultural tribes, descendants of the farmers of the wooded steppe of Scythian times. Among these the most important part was played by the East Slav tribes [the modern Russians, Ukrainians, and White Russians speak east Slavonic languages and are descended from them. See Chapter 9. T.].

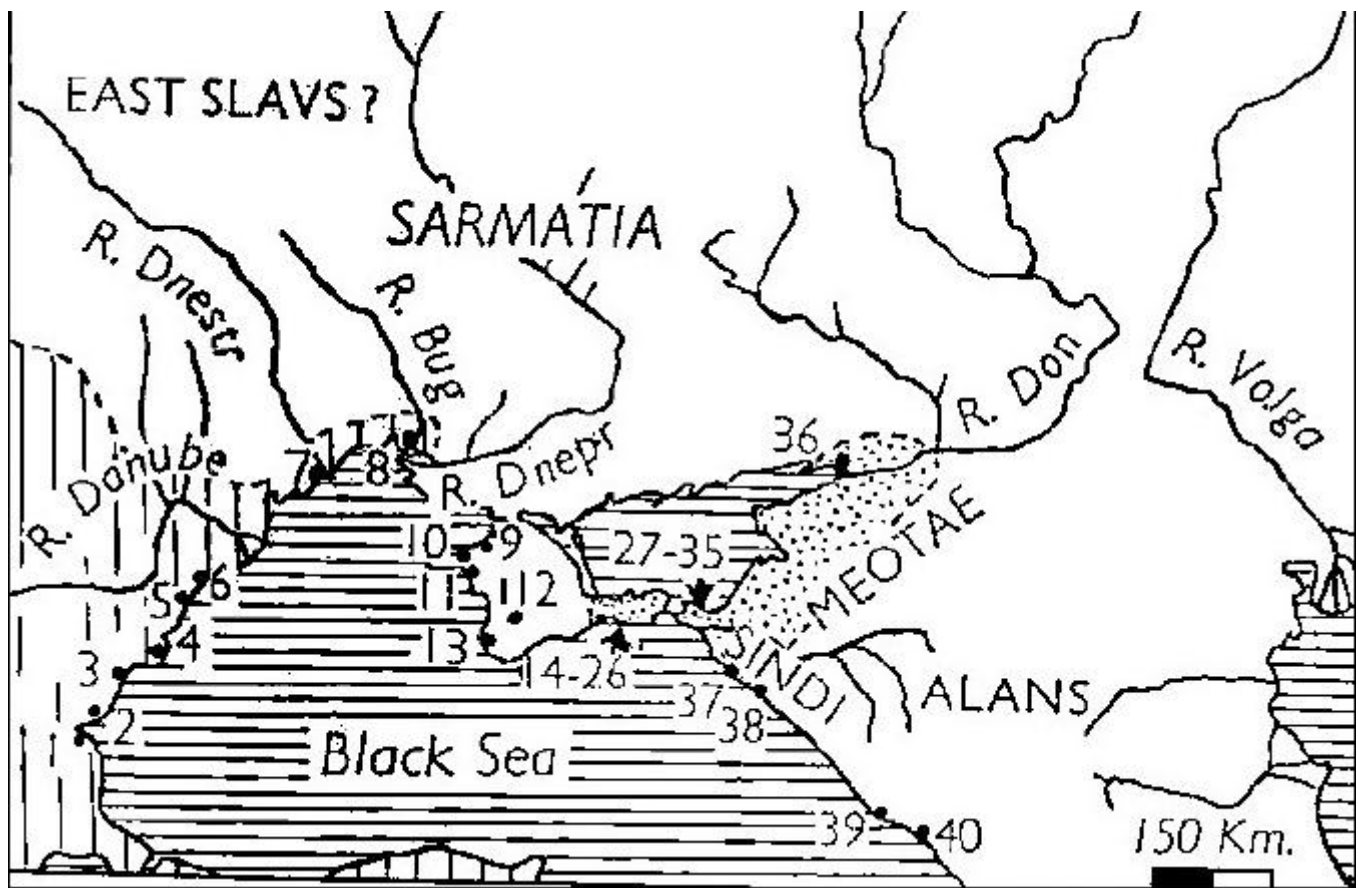
Chapter 6.

Classical Cities on the North Coast of the Black Sea

[179] IN the sixth and fifth centuries B.C. numerous towns founded by the Greeks came into being on the north coast of the Black Sea. This was part of a general process of Greek colonization that began in the eighth century. The basic causes of this colonization were rooted in changed historical conditions connected with the development of a slave-holding society and state among the Greeks...In the eighth to sixth centuries B.C. the Greek city-states undertook active colonization on an expanding scale. Thus to Miletus alone several ancient authors attributed up to ninety colonies. Colonization took place in a large number of the lands that encircle the Mediterranean. Greek sailors, merchants, and predatory slave-traders penetrated to the north coast of the Black Sea. Here trade factories were founded at first and later urban colonies that played an important part in the history of the southern part of our country. Between the seventh and fifth centuries B.C. colonization expanded over practically the whole of the north coast of the Black Sea between Belgorod-Dnestrovsk and Novorossiisk, and into the area of the Azov Sea and delta of the Don.

Amongst the colonies founded by the Greeks, the most important were: Tyras (7) (now Belgorod-Dnestrovsk),* [* Note: These towns have Greek, Latin, and Russian versions of their names; in this translation the usual Latin spelling is used. The figures in brackets refer to the position of the towns on the map (Fig. 18). T.]

Greek cities on the north coast of the Black Sea.



Olbia (8) on the Bug estuary, Chersonesus (13) near Sevastopol. Theodosia (14) (bearing the same name today), Panticapaeum (26) on the site of modern Kerch; Tanais (36) at the mouth of the Don, Phanagoria (30) on the Tamansk peninsula, Gorgippia (35) (now Anapa). The Greek colonies only occupied territory immediately adjoining the sea; they did not penetrate deep inland. Beyond the limits of the coastal area lived the native [180] inhabitants, who were barbarians in Greek eyes. Soviet archaeologists have shown that Greek colonization took place not only on account of certain socio-economic conditions in Greece, but also on account of reciprocal conditions among the native tribes in the Black Sea coastal area. In other words the socio-economic state of the native population had been already raised to a level where a development of trade with the Greeks was possible. The trade connexions already slowly developing assisted subsequent Greek colonization.* [*Note: The argument is ingenious but not wholly convincing. T.]

Russian scholarship of the pre-Revolutionary period achieved significant successes in the study of the ancient cities of the north coast of the Black Sea. The archaeological material had great importance, for without it it would not have been possible to work out their history. The material remains, particularly the inscriptions, are the most important source for the history of Olbia, Chersonesus, and other towns.

The evidence of ancient authors and the numerous inscriptions were examined by various

workers, who made it possible to trace the political history of the north coast of the Black Sea. Excavation of the ancient sites yielded some information about their plan, urban industry, the development of crafts and trade and other sides of their culture.

The most important deficiency of pre-Revolutionary classical archaeology, as in many other branches of this subject, was the disproportionate attention paid to artistic remains with a lack of study of the great mass of material throwing light on the life of the population. The brilliant civilization of antiquity completely covered up the history of the local population in the work of bourgeois scholars...Soviet archaeologists studying classical towns devote special attention to forming a picture of the life of the whole population of the town and above all of the working masses...

Olbia

...The area first colonized was around the mouths of the Dnepr and Bug. Olbia (8 on Fig. 18), founded in the first half of the sixth century B.C. , became one of the richest and largest [181] cities of the north Black Sea coast. It lies on the right bank of the Bug estuary (38 km. south of Nikolaev). The greater part of the immigrants were citizens of Miletus, with whom came citizens from other Greek cities. The fortunate situation of Olbia placed it centrally for successful trade with the native tribes who received the finished and other industrial products of the town. In an extensive agricultural zone adjoining the city a large area was occupied by wheat fields and many animals were kept. Pottery-production was well developed at Olbia, as well as the textile, metallurgical, and other industries. The social system was slave-holding. Olbia was a republic--a *polis*, that is an autonomous city with a sovereign government.* [*Note: In contemporary terminology the Greek *polis* should be called not autonomous but sovereign. Greek colonies after their foundation rapidly became completely independent state organisms, being neither politically nor economically dependent on the metropolis. Each colony had its own constitution, laws, courts and officials, minted its own money, and so on.] In the second half of the fourth century B.C. Olbia reached the climax of its power and wealth. At this period the relations of the city with the surrounding Scythian tribes were comparatively peaceful, but in the third century B.C. , owing to the pressure of Sarmatian tribes from beyond the Don, a movement among the Scythian and Sarmatian population against the Greeks gathered strength. The local tribes continually bore down on the city walls and forced the citizens to pay a heavy tribute. Olbia gradually began to decline. In the middle of the second century B. C. the town was brought under Scythian control, and a century later it was taken by storm and destroyed by a tribe of Getae. For some decades the city lay in ruins. The part of the city that grew again occupied only a third of the original area.

At this time there was a substantial influx into Olbia of the local population, who began to play a large part in the life of the city. People of the local tribes entered the ruling groups. During the time of the Roman Empire Olbia remained a comparatively small town acting as a trade centre. In the second century A. D. a Roman garrison was stationed there, and at the end of the century it became part of the Roman province of Lower Moesia. At this time the city was strongly fortified, the old defensive walls being dismantled and rebuilt. In the third century Olbia's life as a large trade centre was disrupted by an invasion, possibly of Goths. In the fourth century life in the town died out completely.

From the evidence supplied by excavation it has been established that the city was of triangular shape with an area of about 33 hectares (80 acres) bounded by the estuary of the Bug. on the east and deep gullies on the west and north. The city was divided into an upper town and a lower riverside town. It was enclosed by strong defensive walls up to 4 m. thick, with tall towers. The city was densely built over with public buildings, houses, and industrial and storage buildings. The streets crossed each other at right angles forming rectangular blocks. Outside the walls a necropolis has been found covering an area, of 500 hectares (1,200 acres). To the south and north of Olbia are dozens of earthworks and settlements both Greek and native.

The position of Olbia was identified by Russian scholars 150 years ago and the first excavations were made in 1801. In the nineteenth century excavations were undertaken seven times on the site. Systematic excavations began in 1901 on both the city and the necropolis and continued without interruption [183] until 1915. They are associated with the name of one of the greatest of Russian archaeologists, B. V. Farmokovsky. He carried out excavation on a carefully prepared plan, trying to work out the history and topography of the ancient city: its boundaries, system of defence, character of town planning, and so on. An interesting feature of the fieldwork was the beautiful final publication of the result, which has made the excavations at Olbia a model for the excavations of Classical towns. Apart from the interruption by the two wars the excavations have continued annually, up to 1928 under Farmokovsky and after his death by other workers. ...

A very interesting area in the north-eastern part of the upper city dated to the fourth to second centuries B.C. was excavated in 1928-36. On both sides of a narrow street paved with stone flags houses were found. North of this street the remains of two adjoining houses came to light, consisting of eleven rooms and three courts. On the south side of the street one of the houses had three little courts paved with stone flags of irregular shape. North and west of the courts were four living-rooms (one with a cellar below) and several small compartments for storage. The houses had tiled roofs. The main street of the upper town was 10 m. broad and was designed for movement in both directions by

pedestrians, and goods. It was crossed by a series of transverse streets, 2-3 m. wide. On both sides of the main street numerous public buildings have been discovered, and residential houses with storage annexes, among which were houses of rich citizens. These houses were distinguished by their large dimensions and finely-jointed walls of dressed stones. (Not all the houses were constructed in a uniform manner. A peculiarity of construction technique at Olbia was the laying of the stone walls on a prepared bed of alternating layers of clay and soil. In some cases the foundations only were of stone, and for the superstructure sun-dried bricks were used.)

In the central part of the upper town parts of the great city square (the Greek *agora*) were discovered by excavation. A series of public buildings opening on to the *agora* has been excavated in the last few years. The basement of a range of commercial buildings consisting of seven rooms was revealed. Many fragments of rich ornamentation from the upper floors [184] were found, two rooms of which were obviously used for cult purposes (as evidence of this were pieces of marble plaques, statues, decorated vases, and so on). About 700 coins were found which had come from the commercial floor above. The inscriptions from Olbia, more than fifteen of which have been found in the *agora* in the last few years, are noteworthy. In 1952 a monumental altar was found in the centre of the *agora*. This striking monument of architecture is evidence of the high level of artistic and structural craftsmanship in Olbia. Another interesting find was a great reservoir, the walls and bottom of which were of stone blocks laid dry without mortar.

In the lower town an area dated to the first to fourth centuries A. D. has been excavated. Outside the part of the stone defensive wall discovered here a pottery was found, in which there were two large and two small kilns. The large kilns were intended for the baking of large vessels and tiles, the small for baking kitchen and table ware. Against the inside of the city wall were six living-rooms adjoining each other. One of the largest buildings of the lower town was a bakery consisting of six rooms, in three of which were large ovens.

On the vast area of the necropolis at Olbia a substantial number of graves have come to light. This has made it possible to establish the basic types of tomb construction. The first were simple rectangular holes in the ground. Then there were passage tombs, which had a niche for the corpse and grave goods in one of the long walls. The third type was the vaulted tombs constructed for the upper classes. They were made of earth and stone and consisted usually of two divisions, the entry or corridor (*dromos*) and the grave chamber. As the population of Olbia was composed of Greeks and natives, so in the necropolis there were a series of burials showing native grave rites, for sometimes the dead were buried in a flexed position.

A large quantity of objects have come from the excavations at Olbia. Especially

numerous are *amphorae* with pointed bottoms used as containers for storing and transporting liquid and dry fluid products, and red and grey glazed kitchen and table ware. Rich people owned thin-walled vessels painted with ornamental designs and mythological scenes. In the sixth and [185] first half of the fifth centuries B.C. the figures were painted in with black varnish against a red background (for this reason called 'black-figure vases') (Pl. 9b), while from the end of the sixth to the beginning of the third centuries B.C. the background was in black but the figures were left in the natural red of the clay ('red-figure vases'). Many everyday objects, ornaments, coins, and so on have been found. The artistic remains most frequently found are small terracotta statuettes of baked clay representing either gods or goddesses worshipped in Olbia, or the inhabitants themselves. Finds of marble sculptures are comparatively rare. Very important are the finds of remains of Greek inscriptions, fragments of ancient decrees, inscriptions on tombstones, and so on.

The basis of the prosperity of Olbia was the wheat trade. Small Greco-Scythian agricultural settlements have been excavated near the city. [The author then mentions three sites of this type. T.]

Chersonesus

Three kilometres west of contemporary Sevastopol on the west side of the Bay of Karantin lie the ruins of the largest of the Hellenic cities in the western part of the Crimea, Chersonesus (in Greek the word means peninsula) (13 on Fig. 18.) It was founded in 421 B.C. The Hercules Peninsula on which the city was built had been occupied by the warlike and unfriendly tribes of Tauri. It is believed that the Tauri, a people related to the Cimmerians, who lived in the mountainous part of Crimea, maintained their primitive and isolated form of life up to late times. In the first century A. D. the Tauri merged with Scyths to form the Tauro-Scythians. Chersonesus was founded by emigrants coming from Heraclea Pontica, lying on the southern shore of the Black Sea, to the land of the Tauri, and evidently they remained surrounded by these tribes for a long time. Excavations in 1936-7 to the north of Chersonesus revealed a necropolis of the fourth to third centuries B.C. , in which forty per cent of the total number of burials were skeletons in a flexed position belonging to the local population, probably Tauri.

[186] Growing in strength, Chersonesus very soon became a state with influence beyond the town walls. Already in the third century B.C. the city exercised control over a large part of the western Crimea. The inhabitants of Chersonesus were not only traders but also energetic farmers, gardeners, vinegrowers, and craftsmen. Chersonesus was a democratic slave-owning republic [i.e. only free citizens enjoyed full rights. T.]. In the

second century B.C. the Scythians in the area grew stronger and King Palacus made war on the city. The citizens turned for help to the king of Pontus, Mithridates Eupator. The latter destroyed the Scythians but the city now passed under his control and after his death became part of the kingdom of the Bosphorus. Later on Roman garrisons temporarily occupied the southern shore of the Crimea, and in the second century A. D. the centre of Roman occupation was Chersonesus. In the Middle Ages it became one of the cities of the Byzantine Empire, for unlike Olbia its life did not end with the close of the Graeco-Roman period. In the Middle Ages Chersonesus remained a large trading and political centre in the Crimea and played an important part in the economic and cultural life of the population of the Crimea, the Black Sea area, and medieval Russia. The city survived until 1399 when it was destroyed and burnt in a Tartar invasion.

The first excavations at Chersonesus were undertaken in 1827 and continued at irregular intervals through the century. From 1888 the Imperial Archaeological Commission took charge of the excavations and dug there regularly every year up to 1914. The defensive walls bounding the city were uncovered, as well as a number of areas (amounting to about a quarter of the walled town); the plan of the medieval city was established; several Christian churches and public buildings were excavated, and over 4,000 tombs were discovered. The central part of the city, the most important archaeologically, had not been tackled in pre-Revolutionary times, for it was occupied by a monastery and its gardens.

After 1917 the Chersonesus museum was converted into a scientific research foundation undertaking intensive research on Chersonesus and sites in the Hercules peninsula. In Soviet times prolonged examination of the city fortifications has been [187] undertaken. These developed gradually and in the course of many centuries they were completed and later altered. Three tiers of wall have been discovered; Greek, Roman, and Byzantine. The medieval tiers and new parts of the walls along the sea were constructed mainly in the sixth century A. D. In this form the fortifications served the city up until at least the end of the tenth century. The wall enclosed the city on all sides, and its total length was about 3.5 km. On certain parts it was up to 3.8 m. thick. The technique of construction in the different periods was distinct. The oldest wall consisted of small blocks with a rubble filling set in clay. The work of the Hellenistic period [i.e. after Alexander the Great. T.] was distinguished by accurate and monumental facing, consisting of large blocks laid without mortar and with a rusticated surface. The powerful towers were crenellated, and along the top of the wall were arrow slits.

The town within the walls covered about 38 hectares (95 acres). From the beginning it was laid out on a strict plan, straight streets crossing at right angles, and now excavation has been carried so far that one can walk along the ancient streets. The majority of surviving houses belong to the medieval not the classical town. Excavations from

1934-53 on the shore in the northern part of Chersonesus revealed areas occupied in the third to second centuries B.C., but where occupation had continued throughout the Middle Ages up to the fourteenth century. The classic building units normally consisted of two houses. A narrow corridor led from the street into a central court open to the sky, and residential and storage rooms were arranged around the courtyard. Nearly every court-yard had a well or cistern for storing rain water. The discovery in 1938 of a mosaic floor of the second century B.C. in a small domestic bathroom was of interest. It was made of small coloured stones (beach pebbles). In the central part there are two standing naked female figures and between them a tall washing vase. One figure is shown against a dark blue background, the other against a yellow cloak. This remarkable example of a classical mosaic might have been made by local craftsmen.

Evidence has emerged that throws light on the economic life [188] of the city, which was based on trade in products of specialized agriculture and of craftsmen's work.

Wine-making occupied one of the most important places in the economy. Outside the city walls in the Hercules peninsula lie the ruins of several dozen ancient Greek farmsteads. Excavation of one of these has determined its plan and the dimensions of the buildings, and established that it existed in the third to second centuries B.C. The farm was square and enclosed by stone walls with a square tower in the eastern corner. In the farms of the peninsula vine cutters and the stones of wine-presses have been found. Also on the farms there survive long straight banks dividing up parts of the ground which are the remains of stone walls.

In the northern part of Chersonesus two wine-manufactories dated to the second to fifth centuries A. D. have been found. These consisted of a cement area on which the pressing of the grapes took place and three tanks into which the grape juice flowed. Beside the press was a wine store, where the rock had been hewn out to form several dozen circular holes into which *pithoi* were fitted. Wine-making required a substantial quantity of pottery containers for storage and transport. In Chersonesus and its surroundings the remains of large potteries have been found, one in the north-east part of the town being dated to the third century B.C.

Besides viticulture and wheat-farming there were extensive fisheries. The numerous cisterns in the town dated to the first century A. D. and used for salting fish are evidence of this. The cisterns are rectangular, or less often pear-shaped, and are 3 m. or more deep with a capacity of 60 cu. m. or more. They are hewn out of the solid rock, lined with stones, and carefully plastered with a mortar of mixed lime, sand, and finely pounded pot sherds. The plaster was impermeable, so that ground water could not infiltrate into the tank or the brine or vinegar leak out. Beside the cisterns there are storehouses containing *pithoi*. Partial excavation showed three large rectangular tanks side by side and two storehouses with *pithoi*. One cistern had a thick layer of fish on the

bottom, and in one storehouse there were nine well-preserved *pithoi* containing fish remains.

Archaeological finds and inscriptions provide evidence of an active trade with Greece, Asia Minor, the Black Sea area, and [189] especially cities on the opposite shores of the Black Sea: Sinope, Heraclea Pontica and elsewhere.

The excavations in the necropolis at Chersonesus have yielded very interesting results. They showed a clear picture of the social stratification of the population. Burials in family tombs made of stone blocks or in tombs hewn out of the rock have a varied and rich inventory. Gold jewellery, necklaces, rings, glass vessels, and much else are found there. The poorer graves are simply dug into the soil and usually contain no grave goods. A number of remains of the Roman period have been discovered at Chersonesus, including large buildings. In 1936 baths were discovered, distinguished by their huge size, their monumental walls, and the adoption of new techniques such as the arch and the vault. Exceptionally valuable monuments of local work dated to the end of the second century A. D. are the great marble reliefs discovered in 1935. They were all found during the excavation of a Christian basilica of the sixth century, in which they had been used for paving the floor. Originally plaques decorated with reliefs were used for ornamenting mausolea and also as the sides of sarcophagi. The plaque illustrating the labours of Hercules is of very great interest.

Amongst the numerous medieval remains of Chersonesus one group discovered in the northern coastal part of the city where it has been eroded by the sea is noteworthy. The original occupation in this area belongs to the middle of the fourth century B.C. Life continued here without interruption through many centuries up to the fifteenth century A. D. In the early Medieval Period (fifth to seventh centuries) large Christian basilicas were erected here. One was discovered in 1932, another in 1935. Study of the residential areas of the Late Medieval Period shows a process of gradual impoverishment and decay, dislocation of trade and economy reducing Chersonesus in the thirteenth and fourteenth centuries to an insignificant settlement rather than a city.

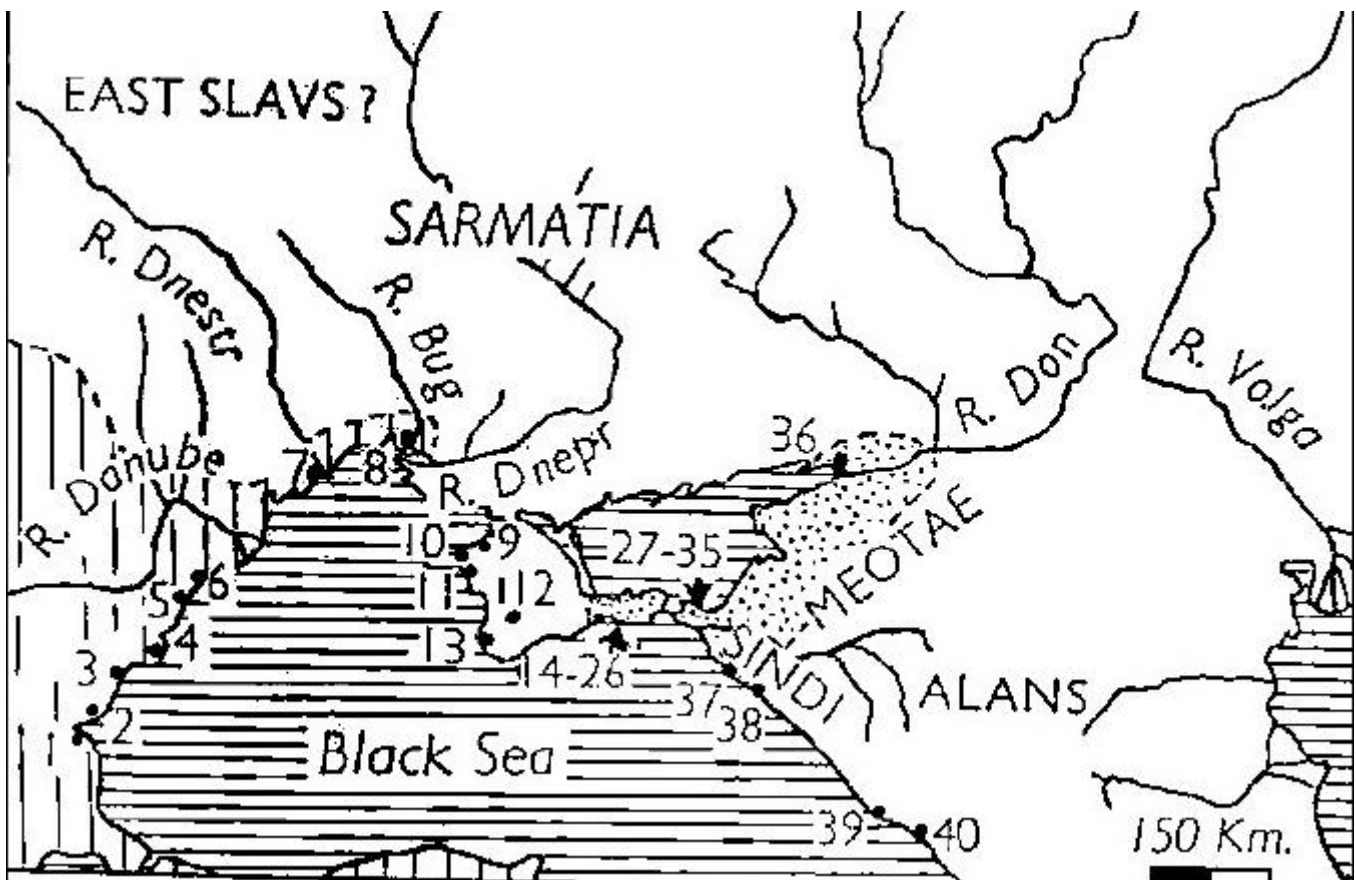
Chapter 6.

Classical Cities on the North Coast of the Black Sea

The Bosporan Kingdom

Around the straits of Kerch called the Cimmerian Bosphorus in classical times several Greek city-colonies grew up, amongst [190] which the most important were Panticapaeum (on the Crimean side of the straits) and Phanagoria (on the opposite side of the straits in the Tamansk peninsula). Close to Panticapaeum was the city of Myrmecium (the present Cape Karantinnyy), farther south along the coast Tyritace and Nymphaeum. South of Phanagoria were two large cities, Hermonassa (probably the present Taman) and Corocondame. Besides these towns there were a number of settlements of less importance. (The towns are Nos. 14-37 in Fig. 18.)

Greek cities on the north coast of the Black Sea.



These were independent city states to begin with, but they soon united into an extensive Bosporan state whose capital was at Panticapaeum. The unification was evidently a voluntary one, and as much as economic its purpose was the rallying of the Hellenic settlers for self-preservation because they found themselves surrounded by powerful warlike tribes. The united cities formed a strong political force which not only defended the Bosphorus from encroachment but also began aggressive action against its neighbours.

The birth of the Bosporan state took place in 480 B.C., when the aristocratic family of the Archaeanactids began to rule the state. After forty-two years they were replaced by a new dynasty, the Spartocids. Under their rule there was a remarkable expansion in the state's boundaries with the annexation of Nymphaeum, Theodosia, and land belonging to a number of local tribes. The fourth and third centuries B.C. were the most flourishing period of the kingdom. It owed its prosperity in this period in large measure to the trade in wheat. The crafts reached a high level of development. In the second century B.C. the economic and political circumstances were less favourable for the Bosporan kingdom; the competition of Egypt undercut the wheat market, while in the Crimea a powerful Scythian state arose threatening the Bosphorus. At the end of the second century B.C. there was a rising of Scythian slaves under the leadership of Saumacus against the Bosporan King Paerisades. Saumacus was able to seize Panticapaeum and Theodosia, but the rising was quickly crushed by the Pontic king Mithridates Eupator, who united the Bosporan towns to the Pontic Kingdom. He suffered defeat at the hands of the Romans and fled to Panticapaeum, where he committed suicide. From [191] then on the Bosphorus was more or less dependent on Rome. The dynasty of Bosporan kings continued until the fourth century A. D. Its later history is little known.

In the last period of life in the Bosphorus, from the end of the second century A. D., an economic crisis and the decline of external trade which was connected with it led to a diminution of population and impoverishment of the towns. There was a general crisis in the slave-holding system, and feudal relationships were ripening. Weakened and wrecked by internal contradictions, the Bosporan kingdom was not in a state to protect its possessions from the barbarians, and the attacks of the Huns that burst upon it in the seventies of the fourth century A. D. brought about its final collapse. After it had been crushed by the Huns, life over a large part of the Bosporan kingdom completely ceased. Only after some time had elapsed did the inhabitants return to the ruins of the half-destroyed cities.

The history and culture of the Bosporan kingdom became the subject of systematic study from the beginning of the nineteenth century. The first excavations were undertaken in 1816 at Kerch, and from 1830 systematic excavations were carried out annually both on the Kerch and Tamansk peninsulas, thanks to which remarkable architectural and inscribed remains were unearthed. However the main efforts of pre-Revolutionary

archaeologists were concentrated on the excavation of the cemeteries lying close to the cities. Soviet archaeologists have turned their attention above all to the examination of occupied sites.

The Bosporan Archaeological Expedition, organized by GAIMK and continued by IIMK, has carried out great work in the study of the Bosporan cities, especially on the 'little towns' and settlements on the Kerch peninsula.

The assembling of all this material has shown the general features of the economic and social life of the Bosporus. Material collected over dozens of years has made it possible to study its trade, agriculture, and crafts. The Bosporus produced a large quantity of wheat and marine fish and also animal products (skins and wool), as well as slaves. Bosporan merchants, shipowners, and landowners accumulated substantial wealth which allowed them to buy a large quantity of finished articles and luxuries from Greece, Asia Minor, and other [192] places. The varied finds make it possible to form a picture of the trade connexions of the Bosporus. Thus for example an important source for settling the question of where wine and oil were imported from are the *amphorae* with pointed bases in which the products were carried, for on the *amphora* there is often a stamp showing the place where it was made.

Goods coming into the Bosporus or produced there were carried by traders far beyond the limits of the kingdom.

Corn, the main trading item, formed a special industry organized by the Greeks, and was bought or taken as tribute from the native population. The Bosporus was a country where farming was the chief occupation of the inhabitants. The basic implement was the plough, the form of which can be judged from representations on coins of the second century B.C. from Panticapaeum. Grain was usually stored in pits in the ground or in *pithoi*. Corn was ground with stone querns, mortars, or hand mills with stone millstones. Excavations on Bosporan settlements carried out in the last decade have provided evidence of a significant development of vine-growing and wine-making here. Fishing on a commercial scale had developed in many places, but one of the most important areas for this was the Kerch straits; the basic implements were the seine net and bronze fish hooks.

In the Bosporan cities the most varied metal objects were produced, from tools to artistic jewellery. In the production of objects of precious metals the representation and decoration on the coinage holds an important place. Craftsmen of the Bosporus made artistic vessels of gold and silver, and plates on which complicated compositions (ritual scenes, drawings of animals, etc.) were shown. In their workshops a number of magnificent objects were made, in which scenes of Scythian life were shown with

expressive realism. The production of clay vessels and tiles in the Bosphorus began on an extensive scale in the fourth century B.C. In the cities other crafts developed.

Panticapaeum

The leading town of the Bosphorus was Panticapaeum, where ancient buildings stood on the slopes and at the foot of the present Mt Mithridates in Kerch. The top of the mountain [193] served as the acropolis (the highest point and fortified part of an ancient Greek town and the protection and refuge for the inhabitants from an enemy). A substantial part of the ruins of Panticapaeum has been built over by buildings of contemporary Kerch. During digging for foundations they often came across ancient remains, tombs, and suchlike, but very few systematic excavations were undertaken until 1945.

Excavations have established that on the terraces of Mt Mithridates lie the ruins of sumptuous public and private buildings. On the outskirts of the city were the houses of the poor and of craftsmen; the lower part, the port, was the scene of much activity. Houses of the sixth and fifth centuries B.C. have been revealed by excavation on the mountain. The use of terracing on the hillside in the planning of Panticapaeum has been proved to be as early as the fourth century B.C. Information has been collected not only about the town plan but also about its life, crafts, culture, and art (Pl. 11a).

Panticapaeum, third or second century B.C. Terracotta head of an actor.



One of the most important results of the work of the last years may be considered the discovery of the existence of a pre-Greek settlement on the mountain and the presence of a Greek emporium there in the seventh century B.C. An 'Archaic' house was excavated that had been constructed in that century .

Myrmecium

Not far from Panticapaeum on the northern side of the bay was the port town of Panticapaeum: Myrmecium. It came into existence about the middle of the sixth century B.C. , and in the fifth century even issued its own coins bearing a picture of an ant (an emblem corresponding to the name of the town). Systematic excavation began here in 1939. In the beginning of the fourth century B.C. Myrmecium had grown to its greatest size and was surrounded by a strong stone wall, 2.5 m. thick, with towers. Over several centuries up to and including the third century A. D. the population was occupied in fishing, stock-rearing, and trade, but chiefly in wine-making. Gradually the town developed as an industrial and commercial suburb of Panticapaeum but primarily as a vine-growing and wine- making centre. Several large wine manufactories have been found here. [194] In the area near Myrmecium a farm of the third to first centuries B.C. belonging to a large wine-maker has been excavated. The farm was extensive, and consisted of residential and storage rooms grouped around paved courts drained by gutters. Three large wine presses were discovered, with areas for treading the grapes and

great tanks for the grape juice. A deep cemented tank dug for storing wine was discovered. In the storage rooms remains of grain stores, mill stones, and grinders were found. The living-rooms of the owners were luxuriously decorated, for in the excavations a great quantity of painted plaster was found that had covered the walls. Interesting finds in the farm were terracotta statuettes (especially of Hercules) and also examples of varied artistic pottery of the Hellenistic period. From the destroyed roof of the farm a large number of stamped tiles survived that had been made in the Bosporus. Several hundred stamps of royal and private tile factories were collected. The farm perished in the stormy events of the time of Mithridates Eupator, and traces of a large conflagration came to light, together with remains of people who perished in it.

Tyritace

Eleven kilo metres south of Kerch lie the ruins of the town of Tyritace, which formed part of the Bosporan kingdom and was a thickly populated coastal town in the approaches to Panticapaeum. ...

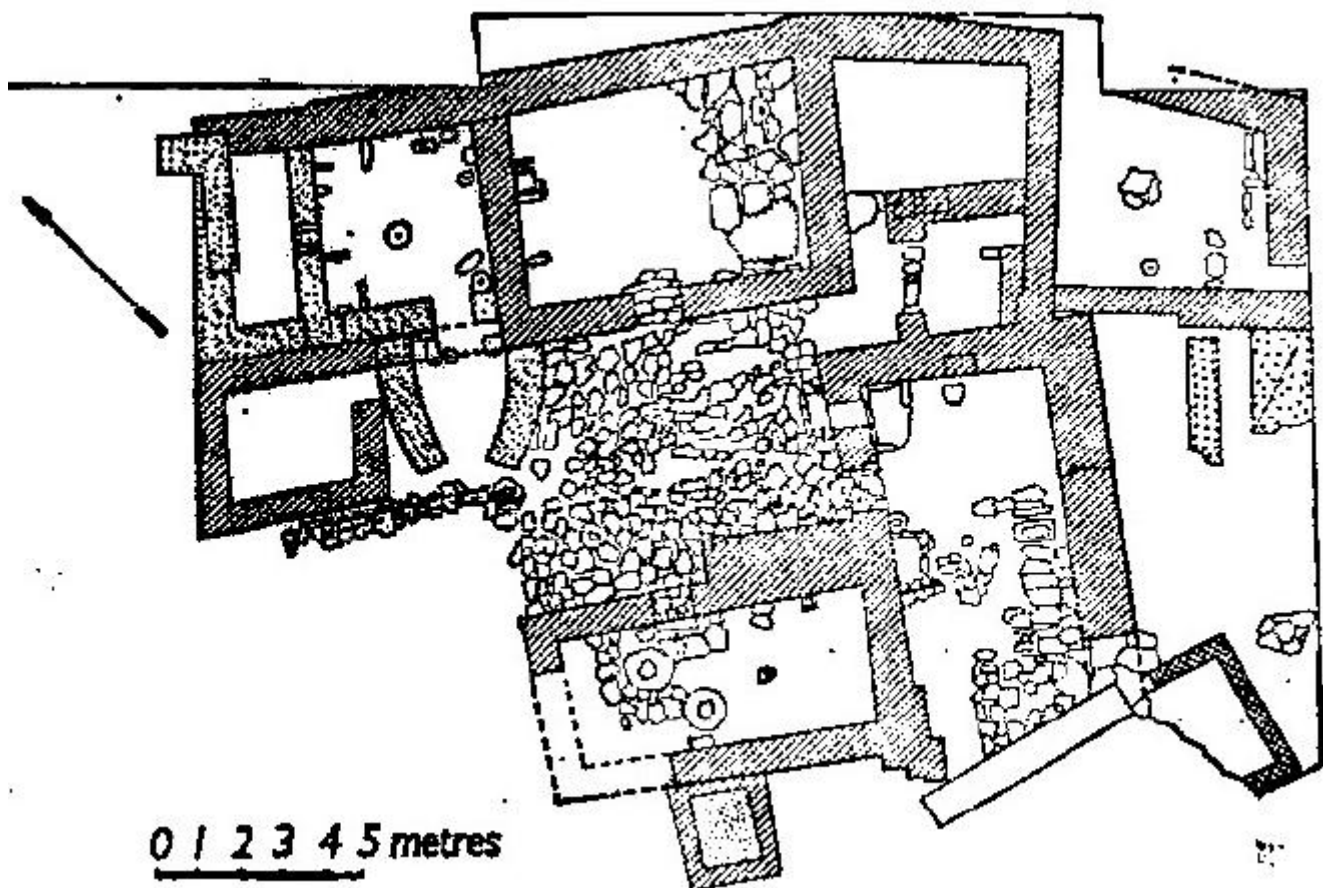
Tyritace emerged as a Greek settlement about the middle of the sixth century B.C. The ruins of a house of the second half of this century, found on the western edge of the town, are of great interest. It consisted of two or three rooms almost square in plan. The lower parts of the wall were of stone, the upper part of sun-dried brick. The roof was covered with clay over a wooden framework. Below the burnt collapsed roof were found numerous and varied objects. Amongst these were various pots, and also painted terracotta statuettes, three of which represented a goddess sitting on a throne. The remains of this house in Tyritace are among the oldest examples of architecture in the Bosporus so far revealed by excavation. In the fifth century B.C. a stone defensive wall was built [195] around the town which underwent considerable alterations in the fourth to third centuries B.C. In places the thickness of the wall was doubled and reached 3 or 4 m.; towers were also added. As at Myrmecium one of the basic features of the economy was vine-growing and wine-making. A wine manufactory of the third to second centuries B.C., consisting of an extensive stone building, came to light in 1946. The north-western part was occupied by a treading area (5.25 by 2.7 m.) consisting of a smooth surface of layers of white mortar underlain by small stone blocks. The pressing of the grapes was done here by slaves trampling the bunches of grapes underfoot. Adjoining this area was a quadrangular vat (2 by 1.75 by 1.55 m.) dug into the ground. The sides and bottom were carefully faced with stone and plastered over. The vat could hold 5,000 litres of grape juice. This juice was then baled out in vessels, *pithoi*, and *amphorae*.

In the Roman period the wine-manufactories were of more complicated construction. In

an example of the third to fourth centuries A.D. excavated in 1946 a press had been set up in the treading area. The juice from here could flow into four vats arranged in pairs. There was a complicated system of channels and sluices by which the juice could be directed as needed into each vat.

In the first to third centuries A. D. the fishing industry and the salting of fish was of great importance. The eastern and southern parts of the town at this time were completely occupied by wine and fish-salting factories' consisting of groups of cemented vats and tanks. The fish salted here were chiefly herring and *khamisa* (a Black Sea fish). A substantial part of the town was occupied by these industrial structures. One long main street passed through the middle of the town and on both sides were residential houses, while behind them and partly between them lay wine presses and fish-salting tanks. No especially rich houses were found. We can envisage the character of the houses of the well-to-do part from the large courtyard house of the third to fourth centuries A.D. excavated in the town (Fig. 19).

Tyritace. Plan of courtyard house of the third to fourth centuries A.D.



This belonged to a fish merchant. The central part of the house consisted of a courtyard

paved with limestone flags which was entered from the street. Around the courtyard were grouped [196] domestic and storage rooms, some of which had an upper storey. The walls of the houses were built of rubble and roughly dressed stones. Clay was used as a binding material. The rooms were lit through windows opening into the court. The house was destroyed at the time of the invasion of the Huns in the fourth century A. D.

After the destruction of Tyriface by the Huns life was renewed, but on nothing like the same scale as before. Houses and a Christian basilica belonging to the sixth to eighth centuries have been excavated.

Nymphaeum

Six kilometres south of Tyriface on the coast lies the city of Nymphaeum, whose ruins lie near the modern village of Geroevik. Excavations have shown that it was founded in about the middle of the sixth century B.C. as one of the Ionian colonies. The presence of a good harbour led to a rapid growth of the town and made it into an important trading centre. The excavated ruins of the sanctuary of Demeter situated on the shore at the foot of the cliff are interesting. The sanctuary had been in use for several centuries from the sixth century B.C. [197] onwards and underwent several reconstructions. Remains of the perimeter wall and the sanctuary wall survived, as well as the foundations of an altar on which offerings were made. A large number of such offerings were found, mostly terracotta statuettes representing Demeter, or maid-servants carrying vessels full of water, or girls performing ritual dances, and so on (Pl. 10b).

Research has shown that life in Nymphaeum continued until the third century A. D.

Nymphaeum. Terracotta relief showing dancing girl.



Cytaca

South-west of Nymphaeum on the high cliff of the shore lie the ruins of the Bosporan town of Cytaca. Archaeological work was carried out here by the Kerch Museum in 1927-9. The town was encircled by a ditch and strong walls with towers of a strength justified by the military importance of the town. Big grain stores were found containing large *pithoi* and grain pits. Economically the town flourished in the fourth to third centuries B.C. , and later in Roman times.

The fortified town of ancient Cytaca has been definitely identified from an outstanding inscription found there. In 1918 a stone plaque from a temple table with a Greek inscription of the third century B.C. was found on the seashore, where it had fallen from the cultural deposit. The inscription records the construction of the communal temple of the city of Cytaca, which was dedicated to the nameless 'god that thunders'. Amongst the finds illustrating the high level of prosperity of the ruling classes of the population may be mentioned a marble sun dial of the second century A.D. decorated with the relief head of an ox. Burial chambers dug out of the rock cliff of Chetyr-Tau which have been excavated preserved traces of painting on their walls.

Cimmericum

The Bosporan town of Cimmericum lies 50 km. to the south of Kerch on Mt Opuk on the Black Sea coast. The Greek city with its acropolis was situated on the hills on the west side of the mountain. The defences of Cimmericum formed the southern limit of the system of defence of the most important and [198] highly populated part of the Bosporan kingdom, its centre and capital. This system of defence comprised a bank and ditch transecting the Kerch peninsula in a north-south direction. Excavations in the town have brought to light remains of the first centuries A. D. and of the last period of its existence. It has been established that the town perished abruptly as a result of being laid waste and burnt by pirate raiders at the end of the third century A. D. On its southern slopes traces were found of a Bronze-Age settlement (beginning of the first millennium B.C.) in the lower layer, and of the sixth to fifth centuries B.C. in the upper layer. Evidently Cimmericum was born as a settlement in pre-Scythian times and retained as its name the ethnical name of the first settlers [that is, Cimmerians. T.].

Iluratum

North of the Chyrybashkoe Lake in the village of Ivanovka lie the ruins of the city of Iluratum. This settlement, almost rectangular in plan, was defended by strong walls and towers. The defensive enceinte consisted of two concentric walls with towers, with an average thickness of 6.4 m. From the inner side of the wall project the well-preserved ruins of buildings of the first centuries A. D. Iluratum is one of the classical towns in which a large area has been excavated. These excavations revealed extensive urban blocks, including domestic buildings and a very interesting barbarian sanctuary of the third century A.D. in which a stone altar came to light.

The population of Iluratum was basically Scythian but partly Sarmatian. Numerous Scytho-Sarmatian handmade pots were found decorated with incised and other ornament. The indigenous population of Iluratum was strongly Hellenized but yet retained its individual culture. So for example finds of ritual terracotta figures of the goddesses of fertility are evidence of local religious observances. Together with the cult of Aphrodite, which was popular on the Bosporus, in Iluratum there continued worship of the special form of goddess of the animal and plant kingdom in the form of a woman with a radiant halo whose arms are shown outstretched, one of them taking the form of a branch of a tree. She is shown thus on a clay stamp of the third century A. D. The excavations at Iluratum give a [199] clear picture of Greco-Scythian culture that was the basis of the Bosporan state.

The westernmost town of the Bosporan state was Theodosia. Excavations began here only in 1949.

Phanagoria

No less thickly settled than the Kerch peninsula was the part of the Bosporan kingdom lying opposite the Kerch promontory, especially within the bounds of the Tamansk peninsula. The most important trading town here was Phanagoria. This defended site lies on the shores of Tamansk Bay, 3 km. to the south-west of the modern hamlet of Sennai, and it covers an area of about 35 hectares (about 80 acres).

The cultural deposits have an average thickness of 4-5 m., in places much more, and were accumulated during many centuries of occupation in classical and medieval times (twelfth to thirteenth centuries). Excavations began at Phanagoria in 1936, and, interrupted by the war, have subsequently been resumed. Digging has established the exact place of the ancient town, its boundaries, and the sequence of the layers in the deposit. As a result of the sinking of the land and flooding of the coast, the waters of Tamansk Bay now cover the northern part of the town. Piles of masonry survive underwater, which evidently are remains of an ancient defensive wall passing round part of the town that is now covered by the sea. In Phanagoria various craftsmen's workshops existed in which pots, tiles, terracotta statuettes (Pl. 11b), metal objects, and so on were made. Numerous examples

Phanagoria, third century B.C. Terracotta head of a satyr.



of imported black and red glazed ware and fragments of wine *amphorae* indicate an active trade in the town. Among the pottery finds are objects from Attica, the cities of the western shores of Asia Minor, Chios, Rhodes, Delos, Heraclea Pontica, Crimean Chersonesus, and elsewhere.

In Phanagoria remains of monumental public buildings and luxurious private houses have been found. Houses, as is usual in Greek construction, were small and had inner courts. In one of the courts a mosaic paving with a pattern of greenish sea pebbles came to light. The internal walls of the rich houses were covered with painted plaster or faced with marble plaques of [200] different colours. First-class examples of such wall decorations were found in 1939-40.

Among finds of the last few years a stele of fine-grained limestone, bearing a relief on both sides and an inscription, deserves mention. The stone is a monument set up, as the inscription shows, in A.D. 179 by Agathus in memory of his father and grandfather who were members of an aristocratic family of the city holding an important position. In the engraving the buried pair are shown, as well as two figures on horseback.

The thick cultural layer covering the remains of the classical town contains foundations of medieval buildings, on which rested the walls of sun-dried brick that no longer survive.

Patraeus

In the northern part of the peninsula there were several settlements mentioned in classical sources, but their exact positions have not yet been identified. There are some grounds for thinking that one fortified site is the remains of Patraeus. In 1931 excavations were carried out here and showed that this settlement arose in the sixth century B.C. The ruins of a large wine manufactory of the first centuries A. D. with three vats similar to those already described were found in the town. In 1948 a second large wine manufactory of the second century A.D. with several pressing areas and vats was discovered here.

Hermonassa

After Phanagoria the second town in importance on the 'Asiatic' side of the Bosphorus was Hermonassa. (The Greeks used the term 'Asiatic' to describe the Tamansk side of the

straits.) This lies on the site of the modern capital of Tamansk, which was also the site of the ancient Russian town of Tmutarakan. Systematic excavations only began here in 1952, although there had been trial excavations in the town and on the acropolis before. The lower cultural layers lie 10 m. below the modern surface, and the layer of classical times is 6.5 m. thick.

During excavations in 1930 in the coastal part of the town, part of an excellently paved street or square of classical Hermonassa was revealed. A temple or sanctuary of Aphrodite was found in the city. It is possible that the fragments of a [201] marble structure and relief found here, showing the struggle of Hercules with giants, embellished this building.

Gorgippia and the Sindi

The Bosporan town lying farthest from the Kerch promontory was Gorgippia, which lay on the Black Sea coast on the site of modern Anapa. Excavations have never been carried out here, but during the archaeological survey in 1927 traces of the ancient settlement were found. During various excavations for the foundations of buildings Greek inscriptions, coins, pottery, and sculptured objects have very often been found. Amongst finds that deserve special mention is a beautifully finished marble statue of a governor of the town dating to the second century A.D.

Gorgippia lay in the land of the Sindi and until it was incorporated into the Bosporan kingdom there had been a native town and harbour here (Portus Sinducus). The Sindi were a people who occupied the Tamansk peninsula as far as Gorgippia before the arrival of the Greeks. Under the influence of Greek civilization and as a result of internal socio-economic development the Sindi achieved important successes in the economic and cultural fields. At the end of the fifth century B.C. they began to mint their own money, but they were rapidly absorbed into the Bosporan kingdom. A special expedition set to work in 1950 to study them as well as the Bosporan rural agriculture, and a number of Sindian settlements have been surveyed. A comparatively small number of urban centres had existed in the country with a whole series of small village settlements.

Proportional to the distance from the important centres of the Bosporan kingdom was the growth of the local non-Greek contributions to life, into which the elements of Greek culture only partly penetrated. Nevertheless this was not the case everywhere. Some remote settlements have emerged as completely Greek cities. Such a settlement was a fortified town recently partly excavated on the lower Kuban 12 km. west of Varenikovska, near the famous Seven Brothers' barrows.

This Sindian town sprang up in the sixth century B.C. and reached an impressive level of development before its incorporation into the Bosporan state. In the first half of the fifth century [202] B.C. it was surrounded by a permanent stone defensive wall and so converted into a powerful fortress. The population were farmers, fishermen, craftsmen, and traders. Of especial interest was a house revealed by excavation and referred to the third and second centuries B.C. , which probably belonged to a prosperous landowner. The house is quadrilateral in plan, 22.5 m. long by 19.5 m. broad. The entry on the south side leads into a court which contains a well faced with stone blocks; on three sides of the court are grouped the internal rooms. The massive thickness (1.7 m.) of the walls is striking. Excavations in the house brought agricultural tools to light.

Elizavetinskaya

The purely native Maeoto-Sarmatian settlements on the river Kuban are sharply distinguished from the Bosporan Greek towns. They are generally small and encircled by a ditch and earth bank. The houses of the inhabitants were constructed of wooden posts, reeds, and twigs, smeared over with clay mixed with straw. One of the largest of such settlements of the Classical Period was examined at Elizavetinskaya, 17 km. west of Krasnodar on the right bank of the river Kuban. The fortified site was distinguished not only by its large dimensions but also by the exceptionally common occurrence of imported objects. During the excavations here besides the local pottery a great quantity of black glazed and other imported ware was found, coins of the fourth to second centuries B.C. from Panticapaeum, and stamped *amphorae* from Rhodes, Sinope, and Thasos. In all probability Elizavetinskaya was the site of an agricultural and craft settlement of the Maeoto-Sarmatians and at the same time a large trading centre through which Bosporan merchants carried out extensive trade and barter in the area around the Kuban.

Tanais

At the point farthest north of the Bosporan kingdom lay the city of Tanais, near the estuary where the river Tanais (now the Don) flows into the Sea of Azov. The ruins of Tanais lie on the steep right bank of the northern branch of the Don delta near the village of Nedvigovka. To judge by the [203] archaeological evidence life in the town began only in the third to second centuries B.C. Before this the Bosporan colony on the lower reaches of the Don was at another settlement, possibly also called Tanais, whose ruins are surrounded by a large barrow cemetery and lie near Elisavetovskaya, 11 km. to the

south-east of the first site. The older of the two towns of Tanais covered a very extensive area (almost 40 hectares, about 100 acres) and had concentric stone defensive walls. The more prosperous people lived in the central part of the town where traces of stone houses have most frequently been found, while on the edge of the town between the inner and outer walls such structures were rare. Here beaten clay houses were found, constructed of a skeleton of branches and twigs and then smeared over with clay. The stone houses with tiled roofs belonged to Greek colonists and prosperous native inhabitants who had adopted the material culture and way of life of the Greeks.

In 1923-8 an expedition of GAIMK examined a series of fortified sites on the lower reaches of the Don which had preceded the arrival of the Greeks on the Black Sea. In the fourth century B.C. these settlements died out but were resettled in the first century A. D. From then on the influence of the more advanced classical culture everywhere shows itself with increasing clarity in the life of the population of these Sarmatian settlements. Evidently an important part was played in this by the growth of the trade operations of Tanais with which the native settlements were linked.

As the main attention of Soviet archaeologists has been concentrated on excavating the Bosporean towns, so the cemeteries have been examined on a more modest scale than in pre- Revolutionary times. However, thanks to the care exercised in the work, it has been possible to elucidate a number of details of the burial ritual, and this way distinguish native from Greek burials, which has assisted in the study of the history of the local population.

Roman Charax

In the middle of the first century A.D. Roman troops appeared on the southern shore of the Black Sea. There were Roman [204] garrisons in Chersonesus, and from time to time in Panticapaeum. The military camps were regular Roman settlements in the Black Sea area. The camp of Charax on the promontory of Ai-Todor, near Yalta, has been studied by Soviet archaeologists. (Excavations were undertaken there in 1849 and 1896-1911 but no reports were published and much of the material has been lost.) Fundamental results emerged from the excavations of 1931-2 and 1935.

These excavations helped to show that Ai-Todor arose in pre-Roman times as a 'refuge' for Tauri. The Romans occupied this area and drove the Tauri away from the coast. The cyclopean wall built already by the Tauri served as part of the defences of Roman Charax, but the chief defence consisted of two lines of roughly coursed stone walls. Most of the buildings were concentrated within the highest wall on a fairly restricted area of

not more than 1 1/2 hectares (4 acres). Here were found small stone and brick houses, supplied by water through clay pipes, and a water tank, on the floor of which there was a mosaic showing an octopus. Bricks and tiles were found bearing the stamps of military units which had made them. Charax was a modest settlement occupied by soldiers and craftsmen, and the only luxurious buildings were the bath-houses. These were used as a sort of club by the Romans, and in large towns were sumptuous buildings. This example was comparatively small (25 m. long by 15 m. broad), but nevertheless it was an important building during a fairly long time and was subsequently enlarged by the addition of annexes. It had special rooms for cold and hot baths, a steam chamber, a dressing-room with stone benches, and lavatories. Large rooms adjoined the baths, one of which was evidently used as a *palaestra* (sports area). The walls were built of stone set in lime mortar with a bonding of brick and broken tile, while the bath was warmed with the help of a system of clay pipes, laid under the floor, through which hot air passed.

After the Romans had left the southern shores of the Crimea in the middle of the third century A. D., life on the hill at Ai- Todor did not cease. The fortifications of Charax evidently continued to serve the local inhabitants as a refuge in time of danger. The poor native population of farmers, fishermen, [205] and craftsmen interred their dead in the necropolis which was started in the fourth century A.D. outside the outer wall of Charax.

Tyras

In 1946 the Institute of Archaeology of the Ukrainian Academy of Sciences began work on the Greek town of Tyras (7), whose remains lie at Belgorod-Dnestrovsk on the shore of the Dnestr estuary. Tyras was founded in the sixth century B.C. and has existed from then to the present day. Three thick levels of deposits (classical Tyras, Slav Belgorod, and medieval Akkerman) allow the many centuries of the town's history to be disentangled. In the excavations of the ancient Tyras the remains of stone domestic and industrial buildings have been discovered as well as roadways, street drains and the like, besides a large quantity of objects.

The thousand years' existence of the classical cities had immense significance for the advancement of culture and for the whole historical development of our country.

The Greek cities stimulated social development and the growth of the economy, culture, and art among the inhabitants of the south Russian steppes. The native peoples borrowed much from the Greeks and the latter in their turn from the native population. The Classical Period in the history of the north coast of the Black Sea is actively studied by

Soviet archaeologists.

Attention must be drawn to several shortcomings of classical archaeology in the USSR. They really amount to this: that the majority of archaeologists follow the path of accumulating and collecting purely source material for their researches. Together with the profound archaeological study of the classical cities it is necessary to study in detail the native tribes living around these cities, to extend research to the agricultural areas around the Greek towns, and to resolve the problem of production in conditions where slaves were used and the problem of the relationships of the classical states of this area with the [206] different parts of eastern Europe on the one hand and with the Mediterranean countries on the other. The profound study of these questions will bring Soviet scholars studying the Greco-Roman period to a proper understanding of the process of historical development of slave-owning society in the Black Sea area, and to a full revelation of the picture of its birth, development, and decay.

Chapter 7.

Ancient and Medieval States of the Caucasus

[207] ARCHAEOLOGICAL study of the north Caucasus and Transcaucasia held a prominent place in pre-Revolutionary Russian scholarship. Publications dealing with the different archaeological monuments appeared in the Materials for the Archaeology of the Caucasus, and discoveries and studies of inscriptions, architectural remains, and so on created a whole subject of its own--Caucasian studies (*Kavkazovedenie*).

After 1917 the best traditions in this field of study continued and were carried forward by Soviet archaeological scholarship. Surveys and excavations followed one another over all the different parts of the Caucasus: Armenia, Georgia, Azerbaijan, Kabardia, and Osetia. Almost all the important archaeological areas of the Caucasus underwent careful study. The history of the ancient cultures and early class societies of the Caucasus has been revealed in exceptionally sharp outlines and allotted an important part in world history.

Urartu

Researches on the remains of the oldest slave-holding state within the limits of the USSR, Urartu, have been of fundamental importance. Already in pre-Revolutionary times archaeologists and orientalists had conducted excavations in Transcaucasia in the region of Lake Van [this area which formed the heart of ancient Urartu lies in the east of modern Turkey. T.] and had discovered and studied cities and graves of Urartu, and translated cuneiform inscriptions; but in Soviet times the study of the history and cultures of Urartu has substantially increased our knowledge of this ancient state.

Urartu was a powerful slave-holding state of the ancient east lying in the central part of Hither Asia on the Armenian foothills in the basin of Lake Van, and was formed in the middle of the ninth century B.C. (Fig. 20).

Map of Caucasus in the second century A.D.



It soon expanded and [208] conquered parts of Transcaucasia, and the fertile valley of Ararat was united to it. For about two centuries from the beginning of the eighth to the beginning of the sixth centuries B. C. the southern part of Russian Transcaucasia formed part of the state of Urartu. In the Armenian SSR a large number of Urartian remains survive: cuneiform inscriptions on cliff faces recording conquests and building works, and remains of ancient fortifications. The kings of Urartu built towns and dug irrigation canals, but for the native population their power brought terrible misfortune, for a large part of the inhabitants was enslaved.

The warrior king Argistis (778-750 B. C.) constructed the fort Argistikhinili (west of Erevan) in the first half of the eighth century B. C. Remains of fortifications and inscriptions have been found there. The latter refer to administrative and economic regulations and one tablet mentions the construction of the strongly fortified town of Irepuni [Erebuni]. Its site was not identified until 1950. Then, during reconstruction work on an ancient fort on the southern edge of Erevan, two stones with cuneiform inscriptions came to light. On one was the following text: 'To the glory of the god Khaldis, Argistis, son of Menuas, who built this [209] strong fort, completed and called the town Irepuni, to strengthen the land of Biainas and to terrify enemy countries. ...' Trial excavations on the site established that there had been a large building of the palace type there, recalling the Assyrian palaces.

Teisbaini (Karmir-Blur)

The extensive excavations on the Urartian city of Teisbaini have special importance. The remains of its citadel lie on the hill of Karmir-Blur on the left bank of the river Zanga below Erevan. Adjoining the citadel are the remains of the town covering an area of about 40 hectares (about 100 acres). Excavations here have provided the basic archaeological sources

for the northern areas of the kingdom of Urartu.

The citadel on Karmir-Blur was built by King Rusas, who lived in the middle of the eighth century B.C. and was the son of Argistis. It was possible to identify the town by the find of a cuneiform inscription on a bronze door bolt found in the excavations, which read: 'Of Rusas, son of Argistis, the fort' ('house of arms') 'of the town of Teisbaini.'

The whole hill of Karmir-Blur was occupied by one enormous building covering about 4 hectares (10 acres) and consisting of no fewer than 120 rooms. The northern and eastern facades of the building were tiered and divided up by a large number of turrets. There were massive towers at the corners. The walls, built with excessive attention to durability, were of large sun-dried bricks of clay mixed with straw, and in the lower part (up to 2 m.) of huge, roughly dressed stones. The rooms were very high, up to 10 m., and were usually elongated, up to 30 m. long, but not more than 4 m. broad. The flat ceilings were made of beams of fir, poplar, or oak. The whole building had a monumental tiered appearance, the central part being higher than the sides and the windows of one tier looking down on to the roof of the tier below. This building was the palace of the king of Urartu's governor.

In the excavated rooms that had been used for storage the remains of food stores were found: barley, wheat, millet, sesame, beans, and lentils. Remains of bread were also found made of millet meal, and pots in which malt was prepared to [210] make beer. Three large rooms were discovered built for making and storing sesame oil which adjoined two storehouses containing 152 large vessels for storing wine (Pl. 12).

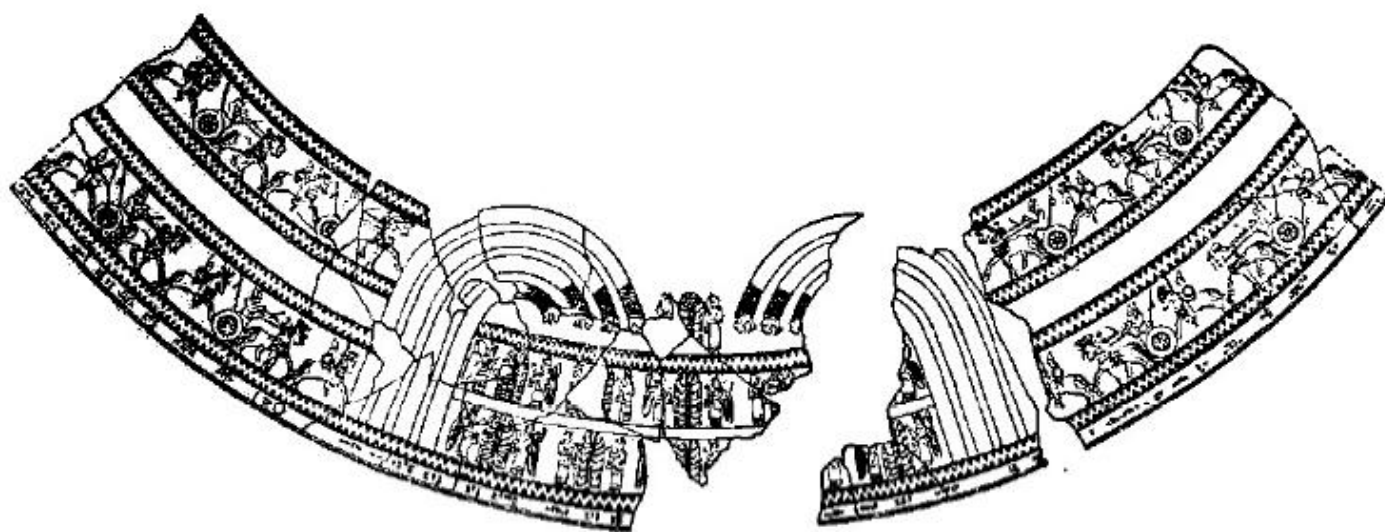
Karmir-Blur (Armenia). Urartian wine store.



Their overall capacity was more than 160,000 litres. Besides rooms with food stores, the citadel had many storehouses in which various objects were kept: iron and bronze tools and weapons, objects of adornment, wooden articles, and textiles. The stores were under the care and responsibility of certain officials. Massive doors made of squared wooden beams were locked with bronze and iron locks and sealed with seals. On the floor of several store-rooms were tablets with cuneiform inscriptions, remains of receipts, details for work, and so on. Not all the store-rooms of Karmir-Blur have yet been examined, and future excavations may yield much that is interesting and unexpected.

In the excavations at Karmir-Blur first-class examples of Urartian art have come to light. The best of them was the helmet of King Argistis, found in 1950. The helmet is of bronze with chased decoration. On the front side there are eleven sacred trees arranged in two rows, and by each tree stands a winged god in a horned helmet. These are overlooked by long-necked dragons with lions' heads, four monsters set on each side. The monsters have a magical significance: protection from evil forces. The back part of the helmet is decorated by two rows of war chariots and horsemen, the latter holding in their hands small circular shields and javelins. On the lower is engraved the short inscription reading: 'Argistis, son of Menuas, presented this helmet to the God Khaldis, his Lord.' Earlier, in 1947, a second such helmet was found on which there was an inscription of King Sarduris, son of Argistis, stating that it had been given by the king of Urartu to the temple of his god (Fig. 21).

Karmir-Blur. Decoration on a bronze helmet of King Sarduris.



Drawings of horsemen and chariots similar to those on the helmets also occur on two bronze quivers on which there are cuneiform inscriptions of kings of the eighth century B. C.

In 1953 a bronze shield of King Sarduris was found decorated with drawings of lions and oxen set out in three concentric bands. On the edge there was a cuneiform inscription.

Amongst artistic productions the bronze figure of the god of war and storm, Teisbas, is interesting for the town, Teisbaini, was named in his honour. The statue shows the god in a [212] headdress decorated with horns holding a mace and battle-axe. Urartian art is similar to the Assyrian in style.

During the excavations of the citadel at Teisbaini many bronze vessels were found, richly ornamented cups, goblets, and so on. In 1949 in one of the jars in the wine store ninety-seven bronze feasting cups placed inside one another were found. At the centre of each cup the name of a Urartian king was inscribed, and sometimes there was a drawing of a fortified tower with a tree and a lion's head below it.

The excavations at the city of Teisbaini have given information about the relations of its inhabitants with neighbouring countries. In the palace seals and beads of Assyrian origin were found, amulets with Egyptian hieroglyphs, gold ear-rings from the Mediterranean, and so on.

An older settlement lay by the edge of the ravine of the river Zanga to the west and south of the citadel. Urartian warriors with their families, numerous artisans doing the extra work necessary to pay the large tribute exacted from Teisbaini, and also farmers working in the fields and gardens belonging to the state lived here. They all lived on state allowances and had no private livelihood to support themselves. So in the excavated houses there are no rooms for the storing of food, or cattle sheds. The houses were built of roughly dressed stone and usually consisted of three rooms communicating with each other by narrow doorways with raised thresholds. The roofs were flat and supported by vertical posts. The main room in the house was lit by a hole in the ceiling which also served as a chimney, while the secondary rooms were lit through the doorway and were half dark. The whole town consisted of such houses adjoining one another over an area in which three straight streets about 6 m. wide were visible with one intersecting street. The settlement was surrounded by a strong stone wall joining the bends of the river to the fortified citadel.

The Urartian administration centre in Transcaucasia, the 'city of the god Teisbas' fell in the early sixth century B. C. under the blows of the Scythians. The circumstances of the destruction of the fort have been established even to the smallest details by archaeological excavation, and are described by the director of the excavations B. B. Piotrovsky in the following way: [213]

The siege of Teisbaini, judged from the condition of the food stores in the houses of the besieged (full grain pits, small vessels with grain), was short. By a decisive attack carried out suddenly by night in the first half of August the Scythians seized the citadel and destroyed it.

Before the attack the citadel was subjected to a barrage from the direction of the side gates and bombarded with burning objects. The temporary houses in the courtyard of the citadel caught alight, and their roofs, constructed only of branches and twigs, collapsed and covered everything inside as if the real storming had

begun. The inhabitants, only succeeded in escaping from under the burning roofs and were not able to retrieve anything. The finds in these temporary houses have made it possible to establish the time of the year when the destruction of the fort took place. The wheat had been harvested but the grapes were not ripe, and in a surviving tuft of grass the flowers were those of the end of July and first half of August. During the attack the Scythians set light to the citadel and the wooden roofs of the rooms were reduced to ashes. The Scythians dug into the burning storehouse and in the midst of the fire tried successfully to retrieve booty. In the blinding smoke they rushed to the storage jars, looked into them, and believing them empty stopped further search there. However, if they had been able to look less hastily and more carefully at all the jars, they would have found valuable objects. The plunderers ransacked the temple treasure-house, but various objects were hidden at the bottom of the jars in its store-rooms. The Scythians would have found here ninety-seven bronze cups, shields, a helmet, and quivers.

After the destruction of the town at Teisbaini life was not renewed. The excavations at the site are continuing and are giving a whole mass of interesting material.

In 585 B. C. , while the Scythians were sacking the northern administrative centres of Urartu, the Medes were taking possession of its central area, and so passed the oldest state impinging on the territory of the modern,USSR. After its collapse, the Transcaucasian tribes formerly subordinated to Urartu emerged as the peoples of Armenia and Georgia.

Armenia

The archaeological evidence bearing on the history of Armenia from the sixth century B. C. to the first century A. D. is very slight, not because the remains of this period have survived poorly, but [214] because these remains have not been examined. The period of the struggle of the Armenians with the Iranian conquerors has not been investigated nor the creation and history of the first Armenian states. Already in the second century B.C. Armenia emerged as a single state, and it flourished in the next century. At that period there were more than fifteen flourishing cities famous for their palaces, temples, and other buildings whose ruins have still not been excavated. The ruins of town walls with towers and buildings have survived to the present day at the city of Tigranocerta and the fort of Garni.

Garni

Researches at Garni have yielded some of the clearest evidence about the level of local Armenian culture developed in close connexion with classical civilization. From the first

century B. C. Rome repeatedly tried to subject Armenia to its power. For a time Armenia was even included in the Roman provinces but the troops occupying it were soon forced to withdraw beyond the frontiers. After this Armenia was ruled by local kings, whose summer residence and army headquarters was at Garni up to the fifth century A.D. The fort at Garni was first mentioned by the Roman historian Tacitus as existing in the middle of the first century A.D. but it had evidently arisen long before this as the latest excavations have shown, probably in fact in the third century B.C. Garni lies 27 km. east of Erevan on the foothills of a range of mountains. The remains of a remarkable classical temple survive constructed of local basalt. On a high spur at whose foot flow the two streams of Azat and Gegard stand the remains of the fort walls and gates. The temple ruins tower up at the edge of the cliff, and scattered about are architectural fragments richly decorated with ornament. The site was excavated in 1909-10 but the results were fully published only in 1933.

The temple at Garni is the best surviving classical temple in the Soviet Union. It is a rectangular building surrounded on all sides by an open peristyle of twenty-four Ionic columns. Soviet workers who have thoroughly studied the material of the excavations have been able to make a reconstruction of the building and to date it. Most scholars favour the view that the temple [215] was erected by King Tiridates I in the first century A. D. In 1945 a Greek inscription of this king was found at Garni in which the construction of a fort was mentioned. Excavations have continued since 1949. and the defensive wall has been cleared and a cemetery excavated. Within the fort six layers have been distinguished: one eneolithic, one Bronze-Age, one classical, and three medieval. The entry into the fort was defended by two strong rectangular towers. The towers and the whole of the fort wall are built of huge basalt blocks (weighing 5-6 tons) fastened together by iron clamps whose ends were turned in and fitted into special sockets filled with lead. Three hundred and fourteen metres of the wall have been excavated, and fourteen strong rectangular towers were found, spaced at 10-13 m. intervals. In its time the fort must have been almost impregnable.

The excavation of the cemetery showed that the majority of burials were of the native Armenian population with only a small number of Roman soldiers.

In 1953 near the temple a small room was found which evidently belonged to the palace complex. The floor was decorated with a splendid mosaic showing mythological figures of the Hellenistic world. In the centre were Oceanus and Talos, on the side nymphs, Thetida and others. This mosaic belongs to the first century A. D., and is the first find of a Hellenistic mosaic in Transcaucasia. Among the Armenian aristocracy and urban population the influence of Greco-Roman culture was strong. The remains of the material culture of ancient Armenia possess the same general features as Hellenistic remains in other countries, but are distinguished by certain characteristics peculiar to them alone.

The excavations of the temple at Garni have revealed a fairly high level of culture in ancient Armenia in the fields of structural techniques, metal-working, pottery- and glass-making, and textile crafts. The fort and settlement survived into the Middle Ages. Excavations are giving

valuable material on the history and culture of Armenia right up to the Late Medieval Period.

The study of medieval remains in Armenia has been uneven. The history of the period has been interpreted through abundant written sources, but these give little information about economic life, the manner of living of the population, and the [216] material culture. Excavations of medieval sites should fill in this gap.

Dvin

The excavations at Dvin (south of Erevan), begun in 1937 and renewed in 1946, are now yielding much interesting information about an early medieval town of Armenia. I

Dvin was a very large politico-administrative and cultural centre of medieval Armenia for almost a thousand years, from the beginning of the fourth to the middle of the thirteenth centuries A. D. Armenian historians of the fifth century record that Dvin was founded in the first half of the previous century. Through the fifth and sixth centuries, owing to favourable historical circumstances, the town flourished and became a large trade and craft centre. During this period the town walls and a number of monumental ecclesiastical and secular buildings were erected. In the middle of the seventh century Armenia fell under the control of the Arabs, and they held it for 250 years. In this period, grievous for the country, Dvin became the capital of the Arab rulers and retained some of its economic importance, although it suffered a sharp decline. From the middle of the ninth century the Arab caliphate began to decay, and the struggle of the Armenian people for independence and freedom concluded with the birth of an Armenian state. A growth in the economy and culture is now observed. After experiencing a severe earthquake in 893 Dvin flourished again. Its growth continued until the middle of the eleventh century, but in the first half of the tenth century a new capital had arisen, the city of Ani. Dvin gradually yielded its first place, and as a result of raids by Turkic tribes ceased to exist in 1236.

The ruins of Dvin lie on the modern hill of Toprakh-kala and excavations have shown that this hill had a very long history. The earliest settlement here was at the end of the third millennium B.C. during the Eneolithic Period. The place was settled also in later times including the Urartian period. In classical times the hill was converted into a fortress, but it was only when, in the thirties of the fourth century A.D., Dvin became the capital of Armenia that its history began as a trading and manufacturing town and not a mere village.

[217] Excavations have revealed a series of important buildings. In the upper town the ruins of palace buildings of Armenian rulers of the ninth to thirteenth centuries A. D. have been found. Below these ruins at a considerable depth (up to 8 m.) the remains of other palace buildings of the fifth to ninth centuries have been found. In the central part of the town the main church measuring 58 by 26 m., the palace of the *Catholicos* (archbishop) [head of the church], part of the fort wall and its gates, the water supply, a smithy, storage buildings, and

wine cellars were discovered. In the upper town and lower fort, houses and a princely hall, baths, a workshop for making pottery and faience objects, and others for cloth and jewellery were found.

The most interesting find was the cathedral. It was built in the third century A. D. as a pagan temple, and was converted into a Christian church at the beginning of the fourth century. From then on it underwent alterations in conformity with the changing styles of Armenian architecture until 893, when it was completely destroyed in the earthquake. To the north-west of the cathedral lay the palace of the Catholicos built in A.D. 461 or 485. This palace consisted of three ranges, of which the northern and southern were subdivided into small rooms, while the middle range consisted of a spacious aisled hall divided into bays by four pairs of columns.

Numerous iron objects were found in the excavation such as ploughshares, spades, axes, adzes, and so on. Jewellery-making had reached a high level. Gold objects were widely exported to other countries. The best quality pottery of Dvin is distinguished by the exceptional variety of form and decoration. Many glazed pots with decorations of animals and stamped patterns were found, as well as faience objects, for the most part white, sometimes blue or greenish monochrome cups. Valuable faience dishes were made, with fantastic animals drawn under the glaze. Several kilns, including one for the baking of high-quality pottery, were found. The glazed pottery from Dvin belongs to the eleventh to thirteenth centuries (Pl.13a) and is

Dvin. Vessel, end of twelfth century.



analogous to similar pottery from other urban centres of Transcaucasia, and to pottery from

several remoter places (Chersonesus in the Crimea and elsewhere) with which the medieval Caucasus had cultural and trade connexions.

[218] Besides locally manufactured pottery, first-class examples of faience imported from the east have been found. About 600 coins (several hundred in hoards) from Byzantine, Sassanian, and Arab rulers as well as those of the local Arab emir have come to light.

The excavations at Dvin, one of the largest centres of medieval Armenia, have made it possible to study the material culture of the fourth to tenth centuries, previously little known, as well as that of the tenth to thirteenth centuries, partly known already thanks to the excavations at Ani (about 150 km. north-west of Erevan), capital and real cultural centre of Armenia at that time. There had been extensive excavations on the latter site in pre-Revolutionary times.

Anberd

In 1936 one of the most important forts of medieval Armenia, Anberd, was excavated. The ruins lie 40 km. from Erevan on a triangular spur between two rivers. The main objective of the work was the exploration of the castle of the feudal lord, surviving as a three-storey building with every provision for a long siege. In the eleventh century the castle as well as the whole fortress belonged to a prince Pakhlavuni. There were a number of churches in the town and one of these constructed in 1026 survives to the present day and constitutes a remarkable monument of Armenian architecture.

Besides religious and domestic buildings, baths, two reservoirs, and a water main were found in the fort. The twelfth-century baths consisted of two little rooms beneath cupolas which had circular apertures. The floor of each room was paved with stone flags resting on stone pillars. The area beneath the flags was for heating supplied from a third small room in which the water was heated. The smoke and hot air from the furnace circulated beneath the flags and found their escape from these through thick clay pipes placed in each corner of the rooms under a stone facing. The walls were built of dressed stone and covered by polished impermeable plaster. Water entered the bath through iron pipes. In a small annexe to the bath-house, the furnaceman's quarters, various toilet articles were found, including three massive bronze mortars for grinding aromatics, [219] censers, and other objects normal in the bath of a rich oriental feudal lord.

Under the floor of one of the rooms the grave of a jester was found, a terribly deformed man. His face had been altered by a special operation so that it was perpetually laughing. The jester was buried with a cockerel, the invariable companion of jesters in the east and the west.

A great quantity of architectural fragments was found in Anberd decorated with reliefs, as

well as numerous glazed clay objects (many of which were found in the castle) with paintings beneath the glaze. Many things turned up which had undoubtedly been imported from eastern countries, for example a Chinese vessel, and from the south, including Egyptian or Syrian painted glass.

In Armenia numerous architectural monuments have survived to the present day. They are the work of remarkable artists who created their own style. The investigation of these sites will help us to understand more fully and clearly the artistic side of the medieval culture of Armenia.

Georgia

The time when class-society and the state emerged in west Georgia is not accurately known. Already in the seventh century B.C. the Greeks carried on active trade with the population of the Caucasus and in the sixth century founded the towns of Phasis, Dioscurias, and Pityus on the coast (see Chapter 6).

The growing external trade and internal barter were responsible for silver coinage minted in this area (Colchis) from the beginning of the sixth century B. C. These coins are found in substantial numbers in west Georgia. The burials show already growing property and social inequality in the population. In the rich burials large quantities of weapons, gold, and silver are found; in others a small number of cheap things. Noteworthy among the finds of this period are gold, silver, and bronze ornaments: belts, necklaces, bangles, ear-rings, brooches, and little figures of animals. Especially favoured in this area were broad bronze belt plates with stylized drawings of animals and ornament. The corpses were commonly interred in large pitchers or sometimes in clay coffins.

[220] Antiquities from Colchis [the classical name for west Georgia. T.] had been known previously for the most part from chance finds or amateur excavations, but in recent years the Georgian Academy of Sciences has undertaken systematic research in the area.

Kldeeti

At Kldeeti (about 200 km. north-west of Tiflis) a rich cemetery of the second to third centuries A. D. has been excavated. The burials were in pits without barrows and the skeletons were contracted, sometimes accompanied by horse bones. In many there were parts of silver and bronze bridle equipment. Among the items in the graves of warriors there were iron weapons: long swords in scabbards decorated with silver, spearheads, and so on. Many bronze and clay vessels were revealed, including silver cups and a bronze ladle with a sculptured stone ram's head in the handle. The ornaments were gold bracelets, brooches, and ear-rings, and silver and bronze objects decorated with enamel. Some of these things were imported from Rome or the Roman provinces, others were the work of local craftsmen.

Map of Caucasus in the second century A.D.



Armazi

In eastern Georgia a state called Iberia by the Greeks arose at the beginning of the third century B. C. (Fig. 20). The capital of Iberia was the town of Armazi, which has been shown by excavation to have been begun around the fourth century B. C. and which remained the capital until the second century A. D. Later the capital became Mtskheta while Armazi remained as its acropolis. The remains of Armazi lie 20 km. from Tiflis, the fortress town being on the summit and sides of a hill, a strategically well-situated point.

From 1937 large-scale excavations have been carried on at Armazi-Mtskheta. At the same time excavations have been conducted north of this site on the largest cemetery in the Caucasus at Samtavro.

The interments here took place from the end of the second millennium B. C. to the seventh to eighth centuries A. D. They are so numerous that the area of the cemetery of almost 14 hectares (over 30 acres) seemed cramped, and sometimes the graves were [221] constructed one on top of another in two or three layers. In Soviet times a substantial part of the cemetery at Samtavro has been discovered and more than 1.5 hectares (3.5 acres) has been examined, in which over 1,800 ancient graves of different periods have been discovered. Some of the graves, as already mentioned, belonged to the Bronze and Iron Ages, but the majority are contemporary with the flourishing period of Armazi-Mtskheta. Over the long period of time that the cemetery was in use the method of burial changed several times: up to the middle of the first millennium B. C. plain burials in the ground; from then to the end of the first millennium B. C. the corpses were

usually interred in large clay jars; in the first centuries A. D. they were in cists, which were constructed at first of tiles and flat clay plaques, and later of stone flags. In the graves there were many valuable objects: weapons, utensils, jewellery and ornaments, coins, and so on....

In the citadel at Armazi remains of strong fort walls and palace buildings have been discovered, as well as the town water main and other buildings. A large quantity of building material was found here: beautifully dressed and decorated stone blocks, well fired and painted tiles, bricks, etc. In Samtavro a burial stone was found bearing a Greek inscription in which mention is made of the 'chief artist and architect Akhol'. This Akhol was apparently a leading architect of Mtskheta.

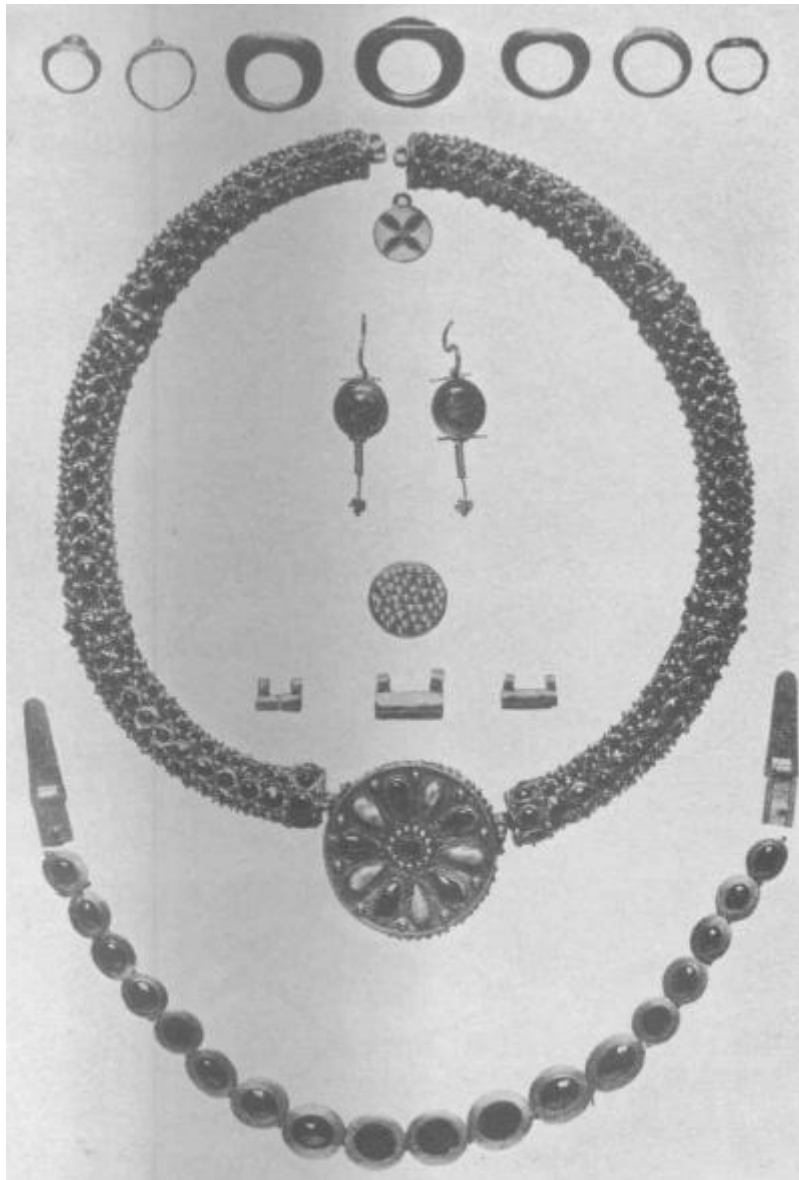
Four km. to the west of Armazi, where the stream Armaziskhevi meets the Kura, on a terrace on the right bank of the latter the ruins of a pagan temple have been discovered as well as the remains of palace buildings and baths. All this was part of a suburban residence of high dignitaries of the Iberian state, *eristavi* or *pitiakhshi*. On this terrace was a necropolis that was in use until the seventh to eighth centuries A. D. The most ancient group of tombs dating to the second to third century A. D. were of exceptional interest. These were in a family vault built next to the palace buildings. The *eristavi* and members of their families were interred in stone coffins or cists of stone flags, sometimes on stands with silver feet. The stands were made of walnut and the corpses covered with gold-woven shrouds with little gold plates and buttons of various shapes sewn on to them. In the graves in this family vault numerous objects were found: gold [222] ornaments, weapons for display, gold and silver coins, and silver utensils of local and foreign make, often with donors' inscriptions. Among the silver vessels deserving mention are a large decorated dish presented to *eristav* Bersum by King Faldad, two cups with engravings of a sacred horse standing before an altar, cups with the sculptured bust of a man, and the high relief figure of a goddess with a cornucopia (Pl. 13b).

Armazi (Georgia). Silver bowl with relief of goddess carrying horn of plenty, from Tomb 6 of the tombs of the *eristavi*.



Especially interesting and varied were the artistic works in jewellery (ear-rings, finger-rings, bracelets, buckles, etc.), made of pure gold with precious stones inset, smalt and gems (cut stones), with portraits of the *eristavi* and their relatives named in Greek inscriptions (Pl. 14).

Armazi. Jewellery from Tomb 6 of the tombs of the *eristavi*.



The rich grave goods from the grave of *pitiakhsh* Asparukh have survived entirely, and the portrait gem is distinguished by the fineness of its workmanship and realism of its drawing.

Mtskheta

The grave structures of Mtskheta are very varied. In 1947 at Bagineti the remains of a tomb of the second century came to light, which had evidently been a royal mausoleum. It was constructed of regular courses of large sandstone blocks joined by iron clamps embedded in lead. The top was covered not by a true vault but formed by corbelling. A tomb that is a unique monument in view of its almost intact state of preservation was discovered at Mtskheta in 1951. It also was made of large sandstone blocks and covered

by a semicircular vault of dressed stone, while its gabled roof was covered with tiles decorated with red colouring. The tomb is referred to the end of the first century A.D., but had been robbed in antiquity. However, amongst the surviving objects there is much of interest: the remains of a coffin stand, four silver and nine gold coins, numerous and varied vessels, dozens of gold beads and buttons, a small bronze hollow statuette of a naked beardless boy, and so on. The composition of the grave goods indicates that the person was a woman of the ruling aristocracy.

Very remarkable inscriptions have been found at Mtskheta. Besides several in Greek and two in Hebraic, there were inscriptions in some local language written in hitherto unknown characters of Aramaic origin and called after the site [223] 'Armazi script'. In 1940 a stone plaque with a bilingual inscription was found in the Armaziskhevi necropolis. The text is written in Greek and in the local language in 'Armazi script'. The inscription is dated to the middle of the second century A. D.

This bilingual inscription has made it possible to decipher a group of inscriptions written in the unknown language which previously could not be read. Thanks to the knowledge of the elements of the language of the Armazi inscriptions it is possible now to read them, or at least to obtain the general meaning. The inscriptions found in the Armaziskhevi cemetery make it possible to work out some details of the political history of Georgia and in particular the lives of the civil servants of the Iberian kings called *pitiakhsh*. No less important is the knowledge gained for the study of the development of the Persian and other alphabets, as well as the Georgian script. [Georgian is written in a script of Oriental origin, not in the Russian script which is of course derived from Greek letters. T.]

Mtskheta was the capital of eastern Georgia (Iberia) up to the sixth century A. D. It was at the end of the town's life that the temple of Jvari was built by a man of genius. It holds an exceptional place in the history of Georgian architecture and survives to the present day. In the sixth century Mtskheta gave up its first place to Tiflis (the modern capital), but it remained a religious centre.

The results of the excavations just described prove that ancient Iberia was a developed class-state distinguished by a high degree of Hellenistic culture, which was the foundation on which many centuries of Georgian culture and statehood later rested.

Dmanisi

Medieval Georgian towns have in recent years received attention from archaeologists.

One of the best studied of these is Dmanisi. This fortified site lies about 100 km. south-west of Tiflis on a high precipitous spur at the confluence of two rivers. Georgian written records first mention Dmanisi in the ninth century A.D. It already played a large part in the political history of the period and its name frequently occurs in the sources. It gradually emerged as a town in the first rank of Caucasian [224] towns, and as an important trade centre on the caravan route joining Georgia with Armenia and the Near East. Its population was mixed Georgian, Armenian, Osetian, and Arab.

In the early medieval period Georgia was split up into a mass of small principalities; the struggle for unification was prolonged and accompanied by civil war. Only during the reign of David the Builder (1089-1125) was the formation of a single powerful feudal state completed under the control of one monarch. After 1123 when David took Dmanisi the town was once again in Georgian hands. At the end of the fourteenth century Dmanisi like other Georgian towns was destroyed by Timur. In the sixteenth century it was occupied by the Turks, at the beginning of the seventeenth century by the Persians. In the middle of the eighteenth century its existence as a town ceased and it was finally deserted.

During the excavation it was possible to distinguish two layers dated by coins; eleventh to thirteenth centuries, the floruit of Georgian culture, and thirteenth to fourteenth centuries, the time of Mongol control.

The town walls and various houses inside are built of the local stone, basalt. An ancient road leads to the town gate and continues beyond as a street into the city itself where it leads to the upper town, separated from the lower by its own wall. At the foot of the upper town were concentrated almost all the religious buildings, of which the chief one was the so-called 'Sion of Dmanisi' built in the seventh century, restored in the eighteenth century, and still surviving. There are also the ruins of two other churches of very late construction here. Several buildings have been excavated and wine cellars and oil-stores have been found. The best example of urban architecture is the thirteenth-century baths in the fort on the topmost point of the upper town. The baths consisted of three rooms of which the largest was inhabited. The walls of the bath are built of stone and flat square bricks. The roofs of two rooms were covered by flat cupolas, in the middle of which were circular holes to let in daylight. Each cupola was covered by a double gable of flat tile set in lime mortar. One room was used for undressing and for rest, the bath was in the other. Two pipes passed through the walls to provide hot and cold water. In the centre of the floor [225] was an outlet pipe which took away the water under the floor outside. The bath building is set on rock and the foundations do not go deep. The heating arrangements were underground. A clever arrangement provided constant circulation of water into the hot bath, so that the furnace heated the water quickly and evenly but did not overheat it. In the suburbs stand the ruins of three large baths used by the citizens,

and also extensive cemeteries, Muslim and Christian.

In the excavations many copper coins; bronze objects, glass bracelets and other objects were found. Among the coins are some very interesting thirteenth-century ones struck in the local mint with the name of David the Builder. The local pottery is varied, especially the glazed wares with patterns of many colours and drawings of animals.

Dmanisi is a good example of a medieval provincial town, typical not only of Georgia but of the whole mountain region of Transcaucasia. Similar to Dmanisi is another town well known from written sources, the fortress of Rustavi (30 km. south of Tiflis on the river Kura).

Rustavi

The citadel has survived to the present day on an island between the river and an ancient irrigation canal. At the foot of the citadel a residential area was excavated consisting of dozens of uniform buildings constructed of pebbles set in clay mortar. These houses slightly below ground level were typical of eastern Georgia and had a flat roof with central post supporting it. The area was destroyed by fire when Rustavi was sacked in the thirteenth century. The excavations yielded clear evidence of the sack of the city.

The monastery of Gelati (in Georgia) founded by that outstanding agent of the Georgian state, David the Builder, had great significance as a powerful centre of enlightenment, philosophical thought, and artistic culture. In the monastery lie the ruins of an academy in which were taught geometry, arithmetic, astronomy, philosophy, grammar, rhetoric, and music. Excavations in 1945 revealed the main lecture hall of the academy with its stone benches for the students and a stone seat for the lecturer. [226]

The study of the medieval remains of Georgia has clarified the various aspects of its national culture and made it possible to establish a number of historical facts. Archaeological examination of the architectural remains not only provides evidence of a high level of architecture in medieval Georgia but also throws light on those details that are important for the history of culture. Thus in 1936 archaeologists cleared the church at Bolnisi of almost half its accumulated soil. Apart from the fact that this is one of the oldest and most interesting churches of Georgia and could be fully studied during the excavations, a building inscription of A. D. 493-5 was found. This inscription, besides recording the exact date of the construction of the church, is also the oldest monument of Georgian epigraphy. It is written in a beautifully formed majuscule, whose degree of refinement presupposes a long period of development of the Georgian script already

before the end of the fifth century.

Azerbaijan

Class-society and the state appeared unevenly at different times in the various parts of Azerbaijan. While in the north primitive society continued, in the south the slave-holding state of the Medes developed at the end of the eighth century B. C. About 550 B.C. this state was destroyed by the Persians and the country became one of the satrapies of the Persian Achaemenian Empire founded by King Cyrus. Later it became part of the empire of Alexander the Great, and in the third century B.C. was subjected to Parthia. The northern part of Azerbaijan was called Albania in antiquity (in written sources from the fourth century B.C.). At the time when Albania became known to classical writers it was inhabited by a league of tribes. Together with the Armenians and Georgians they struggled against the Romans and later against the Sassanian state in Iran. In the second half of the seventh century A.D., after Transcaucasia had been incorporated into the Arab caliphate, Mohammedanism became widespread. ...

Mingeaur

The history of Azerbaijan is known to a large extent from [227] written sources. Archaeological remains are still little studied and only recently have researches allowed historical deductions to be made. There is one region in the country where such a quantity of archaeological remains of all periods is concentrated, from the end of the second millennium B. C. up to the Middle Ages, that their examination supplies the basis for dating all the remains of Azerbaijan. This is the area near the village of Mingeaur (200 km. east-south-east of Tiflis) on the river Kura. Mingeaur is at the confluence of many water and caravan routes, and evidently in antiquity it was an important centre.

Work at Mingeaur began in 1935 and has continued since. As a result of surveys and excavations, it has been possible to distinguish four periods of settlement and several cemeteries with a complex of rich remains representative of the craftsmanship, life, and culture of the population of ancient Azerbaijan from the end of the Eneolithic Period up to the late Middle Ages (fifteenth to seventeenth centuries A. D.). The excavations have yielded more than 20,000 objects. Several ancient settlements have come to light. They have been called 'earthworks' provisionally and given consecutive numbers. Earthwork No.1 is on the right bank of the river Kura where it joins the Boz- Dag. It belongs to the Bronze Age, to the second and beginning of the first millennia B. C. Remains of huts

were discovered here with beaten clay floors, and pottery kilns.

Earthwork No. 2 lay on the other side of the Kura. This was a medieval settlement, whose inhabitants were agriculturalists. Dozens of kilns were found here for baking wheel-turned pots. They were of a different type from the Bronze-Age kilns on the other side of the river. This site contained a pre-Christian temple which was subsequently converted into a church. In the eighth to ninth centuries, evidently as a result of an Arab raid, this building was destroyed by fire. Its walls were built of stone and sun-dried brick, and were up to 1.8 m. thick. They were decorated with polychrome painting on the inside, while the roof was covered with large tiles. Mouldings from an ornamental frieze and column bases were found. On one stone two peacocks were represented with ribbons round their necks and between them a tulip. On the upper part of the stone was a [228] cornice, on three sides of which was an inscription in the native language. Archaeological finds have helped to discover fragments of script of the lost Albanian language that can be read. The cultural deposit at this site covers the period between the fourth or fifth and twelfth to fourteenth centuries.

Earthwork No.3 is also on the left bank of the Kura on a small hill, and covers an area of 300 by 250 m. In the upper part of the cultural deposit, referred to the tenth to thirteenth centuries, remains of huts were found with walls of intertwined twigs and reeds which were plastered with clay. The upper parts, the ceiling and roof, were supported by special wooden props. The second layer (sixth to tenth centuries) was characterized by numerous finds of hut remains, storage pits, and various objects indicative of an advanced state of agriculture and craftsmanship at this time. The lowest layer belongs to the beginning of the Christian era.

The excavation of the graves in this area on both sides of the river has yielded remarkable material. People were buried here from the first millennium B.C. up to approximately the fourth century A. D. Fourteen types of grave were distinguished, of which the most important are described here. In the lowest layer of the cemeteries there were contracted skeletons with eneolithic pots but without other grave goods. Above were Bronze-Age burials. With these were found large bronze swords, battle-axes, daggers, flint and obsidian arrowheads, bronze ornaments, and grey or black pottery sometimes with white incrustation. Judging by the objects of everyday life found in the graves, the population was in a transitional state from nomadic to settled life.

In the seventh to fifth centuries B. C. we find a culture characterized by extensive use of iron mostly for making weapons. Bodies were interred in an extended position and the graves were sometimes covered with stone blocks. Pottery was red and the usual shape was a round pitcher. Triangular gold, bronze, and silver ear-rings, wide bronze belts, gold necklaces, and so on were found in the graves. There were also seal-rings with

intaglios of a man standing before an altar, a man with shield and spear battling with a lion, the head of an ox, a lion, a red deer, a roe deer, a chamois. and various birds. Sometimes [229] three- finned arrowheads with barbs are found of the so-called Scythian type. This culture belongs to the Median Period, a time when written sources throw little light on the events in Azerbaijan. The find of these arrowheads of a Scythian type is evidence of the invasions of the Scythians into Media which Herodotus recorded. Graves with slightly flexed skeletons belong to the fourth or third centuries B. C. The weapons are now almost all of iron, and bronze Occurs only as a survival.

From the second or first centuries B. C. up to the first or second centuries A. D. the so-called culture of jar burials is found. In vessels of small size with two handles children were buried. In the larger vessels, from 1.2 to 2.05 m. high and 80 cm. or more broad, adults were buried. Around the interment, pots containing the bones of large- and small-horned cattle are found. In the women's graves abundant ornaments occur: beads, bronze bracelets for legs and arms (one skeleton had thirty-six rings on the legs alone), finger-ring seals with stamps of cornelian and glass, and so on. In the men's graves there are weapons; swords, daggers, spearheads, and knives. In these jar burials painted pottery is found with drawings of birds, plants, geometrical shapes, and so on. The bones of domesticated animals found in the graves testify to stock-rearing; pomegranates, walnuts, and other fruit to orchards; sickles, scythes, querns, and other agricultural equipment to farming. To a later time belong the graves in this area in clay beds, wooden frames, catacombs, etc.

Thus the graves at Mingechaur give a remarkable picture of the sequence of cultures following one after the other, and they have formed the basis of the archaeological chronology of Azerbaijan.

Yaloilu-Tapa

As well as from Mingechaur, important archaeological evidence for the period from the third to first centuries B. C., which is feebly illuminated by written sources in north Azerbaijan, has come from the excavations on a cemetery at a place called Yaloilu-Tapa. This site has given its name to a culture found in the lower parts, steppes, and foothills of the Great Caucasus, that is the basin of the Kura on the north side of the river. At [230] this site, plain graves without barrows containing flexed skeletons and a large quantity of pottery were found. The pots are of complicated, sometimes even whimsical, shape; for example, vessels on three legs, pitchers with elongated spouts in the shape of a gutter with a grill at the base of the spout for filtering, and so on. Bronze and iron objects occurred in appreciable quantities. Archaeologists have inferred that the people who have

left this cemetery and others like it led a sedentary life as agriculturalists and sheep-breeders.

Albania

To the period of the struggle of the people of Albania with invading Roman troops belongs a Latin inscription found in 1948 at the base of Apsheronsky peninsula on the coast (near Baku). The inscription records the posting in this area of the Twelfth Legion in the reign of Domitian (A.D. 81-96).

Written information about Albania in the early centuries A. D. has reached us in the collected works of a series of Greek and Roman authors who had obtained their accounts from Roman legionaries taking part in campaigns in Transcaucasia. Of the twenty-nine towns and villages mentioned by Ptolemy (c. A. D. 120-70) only one name has survived to the present day: Khabala (Kabala). Kabala was evidently the capital of ancient Albania. Its ruins lie at Chukhur-Kabala. Graves of the first century A.D. and remains of later times have been found here. The town was in existence for a long time.

Oren-Kala

Recently large-scale excavations have been undertaken at the medieval fortified town of Oren-Kala (about 300 km. south- east of Tiflis). In the opinion of many historians this is the site of the former Bailakan which played an important part in the history of Azerbaijan. The town lay on a basic trade route linking south with north Azerbaijan, Iran with Transcaucasia. There were excavations here in 1933, and again from 1953 onwards.

The town consists of a large rectangular fortified area covering 39 hectares (about 95 acres). The defensive walls were [232] evidently built in the fourth to seventh centuries A.D. Later, in the ninth century, a rectangle within the town was divided off and surrounded by a wall of sun-dried brick with semicircular towers. It became the main fortress and the outer wall fell into decay in the twelfth to thirteenth centuries, although occupation outside the fortress did not cease. The town perished at the beginning of the thirteenth century as a result of a Mongol raid. A series of buildings of the twelfth to thirteenth centuries were discovered, as well as numerous architectural details, including the clay head of a lion. Eleventh-century baths and workshops were excavated where many tools, ornaments and glazed pots, faience, and other vessels were found.

Ganja

Old Ganja (about 200 km. south-east of Tiflis) is the best studied of the medieval towns of Azerbaijan. Large-scale excavations were carried out in 1938-40 on this town, the home of Nizami, the great poet of Azerbaijan. The first references to the town in written sources occur in the ninth century, but it was evidently founded somewhat earlier. By the eleventh century the town was a large fortress, with suburbs adjoining, inhabited for the most part by craftsmen. The town perished in a Mongol attack in either 1231 or 1235. Later it was re-established, but never achieved its earlier prosperity.

Ganja in the eleventh to thirteenth centuries extended along two sides of a river spanned by three bridges built of brick and stone. The town was encircled by two defensive walls about 6 m. thick with large towers at the corners and smaller ones in between. In the enclosed area there were artisan areas, where houses and workshops have been excavated. The houses were built of brick and stone. The city was well maintained, for the ramifications of clay pipes of the water supply have been found. The main products of the workshops were textiles and pottery, the former recorded in written sources, the latter abundantly represented by archaeological material. Besides production of ordinary wares for the general market, a fine glazed ware was made, which was decorated with geometric and plant patterns as well as animal and human figures. It not only satisfied local demand but was exported to other towns. After the Mongol [232] ravages, pottery production fell into decay both in Ganja and the other towns of Azerbaijan,

Important successes have been achieved in archaeological studies in the Caucasus and in Transcaucasia, but the exceptional archaeological richness of this area and its part in world history demand still more extensive research. There can be no doubt that the time will soon come when as yet unturned pages of the history of this area will be revealed.